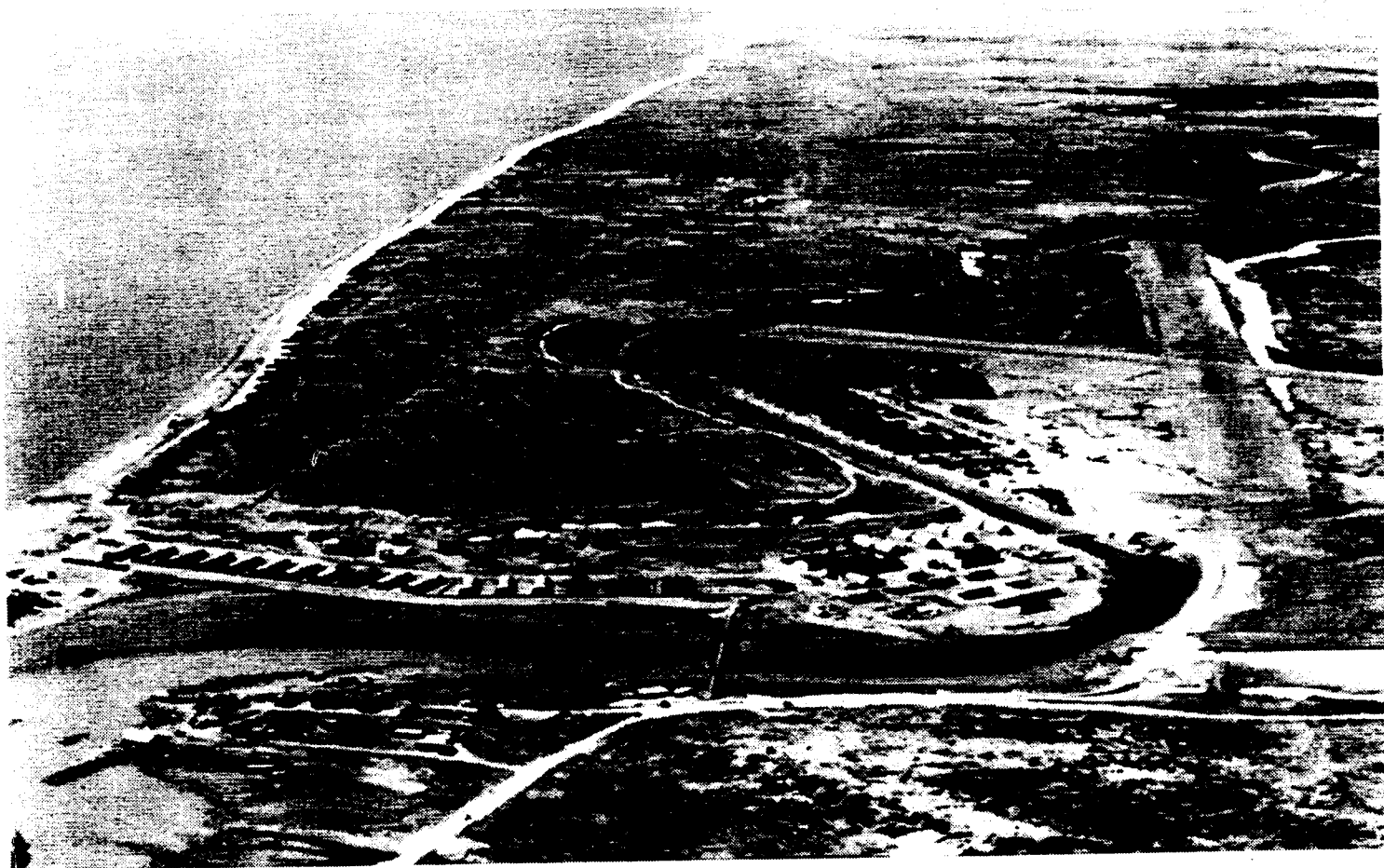


# **HISTORY OF THE MILITARY AIRFIELD AT NOME, ALASKA**



By  
**James W. Williams**

**Tustin, California  
March 1999**

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RESTRICTED

# NOME (MARK FIELD), ALASKA

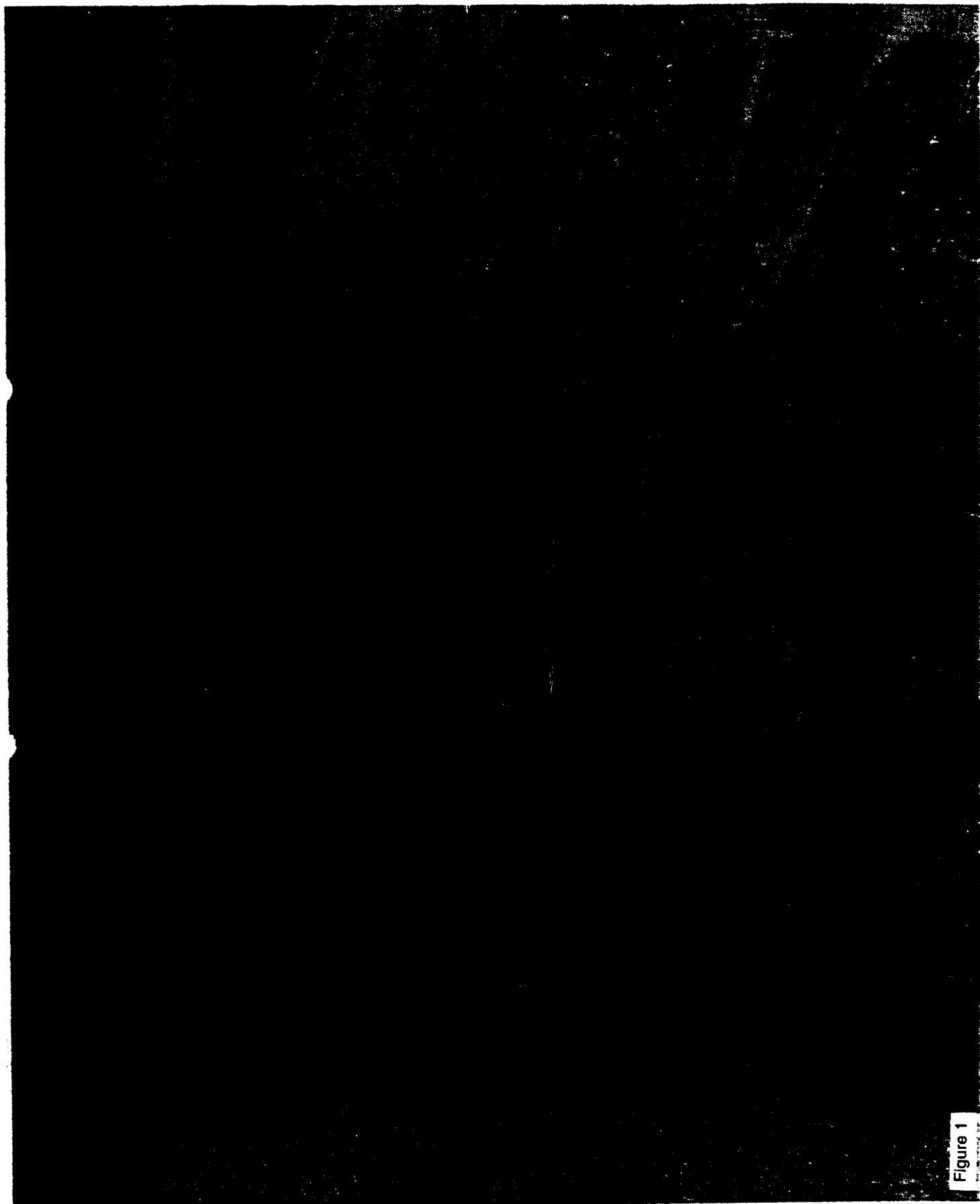


Figure 1

RESTRICTED

RESTRICTED

# NOME (SATELLITE FIELD). ALASKA

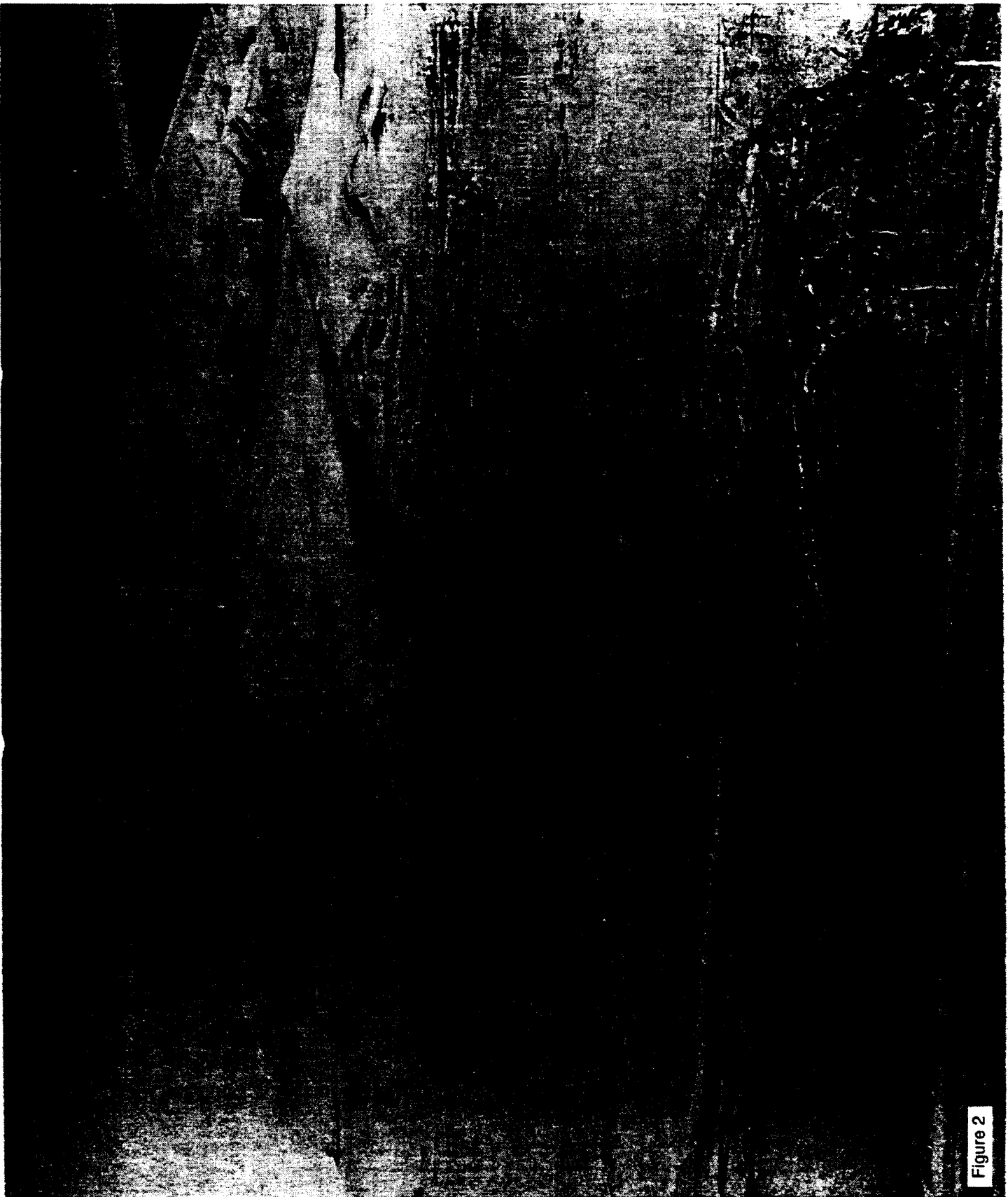


Figure 2

RESTRICTED





Figure 3

Following is a description of the photos, which appear on the preceding pages.

**Cover** is a portion of an aerial photo that appeared in History of the Alaskan Air Command, July-December, 1955 printed in reverse, but has been correctly printed herein. The time of year is probably late June or early July. The year is unknown but from analysis of the base facilities it could have been any year between 1948 and 1955. The photo was taken from over Nome looking west towards Nome Field. The Snake River and Nome harbor are in the foreground. In the middle foreground is the suspension bridge. Facilities on the west and south side of the Snake River are primarily storage, POL, power house, and AFRS. On the north side of the Snake River are headquarters building (BOQ in earlier photos), troop quarters, boiler building, fire station, motor pool, and Birchwood hangar.

**Figure 1** is a photo of Nome Field from a point directly over Nome at altitude 3000' looking west northwest towards Marks Field. The photo source is a pilot's handbook of the Northwest Ferry Route believed to be circa 1944. From the progress of Stage Three construction shown by the photo, it could not have been earlier than late 1944; and from the absence of Cowin warehouses south and west of the Snake River, it could not have been later than 1947. Nome is in the foreground separated from Marks by the Snake River. The Bering Sea shoreline runs at a slight diagonal from top to bottom left of center immediately adjacent to Marks and Nome. Sledge Island is about forty miles distant in the upper left.

**Figure 2** is a companion photo from the same source as Figure 1. It was taken from a point about a mile offshore at altitude 4000' looking north and showing both Marks Field in the foreground and the complex at Moonlight Springs satellite airfield at the foot of Anvil Mountain at right-center. The Bering Sea shoreline is shown just above the bottom margin of the photo. The Snake River, shown after it's relocation for Phase Three construction, passes through the military base in a lazy S curve. In addition to the Moonlight Springs complex, additional facilities can be seen scattered across the tundra between Marks Field and Moonlight Springs.

**Figure 3** shows Nome and Marks AFB circa 1947. The source is Richter Photo. Photo is taken from a very low altitude directly above Front Street looking west. The old Federal Building is the white two and three story structure in the center. The presence of the POL tanks and the absence of the Cowin warehouses dates the photo to circa 1947. Identifiable buildings at Marks include the Birchwood hanger (upper center), power house (three stacks), and BOQ (north and west of powerhouse). Most base buildings are located between the BOQ and Birchwood hanger but are one story and are obscured by the low bluff on the south side of the Snake River.

Additional photos and photo narration are in Appendix C, Personal Recollections, included in the personal recollections of Harry Litts (57 photos) and Jim Williams (19 photos).

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## 1.0 Introduction.

The author of this history is not a professional author, as will soon become evident. He was stationed at Nome Field in 1955-56. His initial assignment in September 1955, was to replace the previous Air Installations Officer with the expectation of helping to close out the Air Force operation. However, the closing of Nome Field was set aside because of continuing need. The author left Nome Field circa September 12, 1956 and returned Stateside for discharge from active duty to the reserves. He returned to Nome in May 1997 for the purpose of renewing old memories. It was no surprise that almost nothing remains except the runways. However, it was a major surprise to find that in Nome there is almost no history of Nome Field. The City of Nome has a museum and a strong historical heritage, yet the museum had almost no information on the military air field after its role in World War II. Five days were spent in Nome and many people contacted, yet it appears that few in Nome have any recollection of the military air field. Those few who had some recollection, largely teenagers or younger when the facility closed, described it as Marks Air Force Base, a name the author had not heard before. Two people, Stan Sobocienski and Louie Green, were located who were in the Air Force at Nome (and I understand there are several others).

With no historical record, Marks/Nome Field exists only in the memory of those stationed there and a small number of long-time residents of Nome. The Alaskan Air Command Historical Office at Elmendorf AFB was visited but no paper devoted to the history of the Air Force at Nome was found other than several one-page summaries that began in World War II and ended shortly after the war. John Cloe, Alaskan Air Command historian since 1973, describes the history of Marks/Nome Field as a black hole. The historical black hole prompted the author, as an intended gift to the City of Nome and the Alaskan Air Command, to put together this history of the Air Force at Nome.

Despite the absence of a history of the Air Force at Nome, there is abundant short unrelated historical information in The History of the Alaskan Air Command, compiled through the historical period of interest on a six-month basis. While references to Nome were not a regular part of the AAC histories, information on Nome occurs whenever an issue or event occurred during a report period which was worthy of inclusion in the history of the Alaskan Air Command. As a consequence, the information obtained from AAC sources was scattered and incomplete. Information was found in a wide variety of other sources, probably no one source represents more than five percent of the total. Hence this information is also fragmented and unrelated. Nevertheless, the author has attempted to relate, sort, and classify the many brief references in a meaningful manner.

In addition to being incomplete, there may be some errors in this history, both factual in nature and in relating fact and events to each other. Some inconsistencies were noted among the various reference sources. Errors may also arise from the author's lack of understanding of some issues, particularly communications and AC&W issues.

The focus of this history is the period 1941 to 1956. World War II began a period of dominance of Alaska by the military. Prior to 1940 Alaska had been sadly neglected by the United States. It was still a territory, without local government, and many Alaskans thought that Alaska existed only to be exploited by outside interests. After a period of long neglect, Alaska suddenly became militarily important and military spending dominated the Alaskan economy for the next twenty

years. Except for southeast Alaska, the rest of the territory was a virtual military province of the United States during the period of focus of this history, 1941-1956. Except for southeast Alaska, most of the roads, rails, ports, airfields, and communications were built by the military or by other units of the federal government for a military purpose. It was much different from the Alaska of today where Prudhoe Bay oil, native corporations, and tourism provide the basis for a strong economy.

This history intends to cover the entire military garrison area: i.e. Marks Field, Moonlight Springs satellite field, and the whole area between the two airfields. It also intends to cover ground troops as well as airmen. Infantry, coastal artillery, field artillery, signal corps, quartermaster corps, engineers, and other U.S. Army ground units made up the majority of the Nome garrison until their withdrawal in late 1944. However, the sources of information have nearly all been related to the Air Force and very little has yet been found on the history of ground troops of the Nome garrison. Never-the-less, the importance of the ground troops is recognized and their omission is not intentional. The sources consulted just didn't have any information. Perhaps information can be obtained from the Army historical archives at Carlisle Barracks, PA.

After the closing of Marks AFB in November 1950, and subsequent rebirth as Nome Field, the mission of the Air Force at Nome was the support of other activities, some located at Nome but most located a considerable distance from Nome. Nome Field cannot be understood without understanding the units that Nome Field supported. Therefore, a portion of this history is devoted to the AC&W sites, White Alice, Mona Lisa, 10th Radio Relay, AFRS, and other activities and to the Cold War background that was the commonality of all military activities that occurred in Alaska at that time.

While the focus of this history is the period 1941 to 1956, it extends beyond 1956 as needed to bring closure to some activities. Also included are several references to Galena. No research was directed at Galena, but where Galena information was discovered it has been included herein. The relationship between Nome Field and Galena will be explained later.

The multiple names of the air arm during the period of this history may cause some confusion to the reader unless the chronology is understood. The air arm was called the Air Service prior to 1926, the Army Air Corps from 1926 to 1941, the Army Air Force from 1941 to 1947, and the United States Air Force from 1947 to present. Prior names seem to persist in reports long after the official change, for example the name Army Air Corps was commonly still used during the period 1941 to 1947.

Special thanks to the many people who contributed information and other assistance. They are: historians John Cloe and Staff Sgt. James Frank of the Alaskan Air Command; Nome residents Jan Williams curator of the McLain Museum, Mary Knodel of the Arctic Trading Post, Stan Sobocienski of the Bering Sea Saloon, Louie Green, Linda Conley former city clerk; and servicemen who served at Marks and contributed personal recollections David J. Aul, Ed Darrow, Sam Gardner, Ralph Graves, William H. Greenhalgh, Jr., Paul D. Heckh, Joel B. Krausse, Harry T. Litts, Donald Sheriff, Art Sleierpin, and George Tanner.

The contributions of several people are worthy of special mention. Joel B. Krausse was at Nome Field for several weeks enroute to the AC&W station then under construction at Cape Lisburne. Joel has furnished significant material from his history of the 160th AC&W Group (Reference 45). The efforts of Harry and Jo Litts went beyond the call of duty and involved exceptional efforts.

## History of Military Airfield at Nome, Alaska

Harry researched his photo collection and Harry and Jo developed a narrative for the photos which is found in the personal recollections appendix. Jo Litts added the special insight of a wife who lived and worked on the base.

While John Cloe's outstanding book, Top Cover for America, The Air Force in Alaska 1920-1983, has little information on Nome Field, it is an outstanding reference for any one wishing to have an understanding of the Air Force in Alaska.

The First Scout Battalion of the Alaska National Guard at Nome, and its predecessor the Alaska Territorial Guard, has a proud and noble military tradition and has been very important in the defense of its country and the military history of Nome. It is not mentioned in this history because this history is the story of the military airfield from 1941 to 1956, and I could find no connection linking the Guard with Marks/Nome Field. An excellent history of the Alaska National Guard and Alaska Territorial Guard can be found in Soldiers of the Mists, Minutemen of the Alaska Frontier (Reference 68).

Probably insufficient credit has been given the CAA in this history. The CAA constructed the runways in 1941 and from at least 1947-1956 (and perhaps earlier) operated the airfield jointly with the military. While the joint-use was dominantly military, if CAA archives had been consulted no doubt there would be additional valuable information could be found which would enhance understanding and appreciation for the CAA role.

This history was first completed in January 1998. Although very incomplete, it provided a basis for communication and exchanging information with others having an interest in the history of the military airfield at Nome. Subsequently contact was made, through the Air Force Association bulletin board, with veterans who served at Marks. Microfilm tapes were obtained from the Air Force Historical Records Agency at Maxwell AFB, Alabama. Additional references were obtained and the reference list expanded from 44 to 68. Permission was obtained from the author to include in the appendix a chapter on the crash of the Forlorn Turkey which appears in World in Peril, The Origin, Mission & Scientific Findings of the 46th/72nd Reconnaissance Squadron (Ref. 11). The result is a substantial amount of additional information. As a consequence, this history has been reorganized, rewritten, and enlarged and the appendix has been expanded to include Personal Recollections, the Forlorn Turkey rescue operations, and others.

The incompleteness of this history is a consequence of the scattered, incomplete nature of the data and is also a consequence of the author having a limited amount of time to devote to this task. It is believed other sources may contain substantial additional information. Appendix F lists other possible sources which have not yet been contacted.

While many historical sites in Nome are remembered with a plaque or sign, there is no marker at the site of the former military airfield. Another former military facility near Nome, Fort Davis, is identified with a historic marker. Fort Davis is associated with the gold rush era of history in Nome but was far smaller than Nome Field and, relative to Nome Field, probably had a lesser role in the history of Nome.

Marks Field was, in recent years, nominated for the National Register of Historic Places but was not accepted. Given the lack of historical information and lack of remaining buildings, it is not surprising that it was not accepted. Perhaps this history can enhance an application should Marks be renominated in the future. (Ref. 34, pg. 43)

Readers who have additional information or personnel recollections are invited to contact the author at 714-838-1047 or fax at 714-838-0636.

### **1.1 Why the Generic Title Military Airfield?**

The title of this history is necessarily generic because the military airfield had many names, at least four official and several more unofficial. Consequently, depending upon when you were stationed there, you may recognize a name not recognizable by people from other times. While at all times the airfield had an official name, official names never seemed to catch on and were seldom used even in military archives. In about eighty percent of the military archives reviewed by the author, regardless of time frame, it was simply referred to as "Nome".

Initially, it was called the Nome garrison, or the airfield at Nome, or Nome Field. On 17 July 1942, Major Jack Marks was killed in action flying his B-17E in an attack upon the Japanese garrison at Kiska. Shortly thereafter the airfield was named in honor of Major Marks. The earliest reference to the name Marks Field was found in a September 1942 document.

References in the World War II time frame suggest that probably the name Marks Field applied only to the main airfield but not to the then much larger military garrison, and not to the Moonlight Springs satellite field; many references during the World War II years typically refer to "the military garrison at Nome" without mention of Marks Field. By late 1944, ground troops were withdrawn and all remaining activities focused on the two airfields, and by late 1945 Moonlight Springs closed leaving only the main airfield (i.e. Marks Field) and its supporting infrastructure. Thereafter, the name Marks Field describes the entire military facility at Nome.

Marks Field continued until 1947 when the U.S. Air Force was created, whereupon the name changed to Marks Air Force Base. It retained that name until November 1950 at which time it was downgraded in status and was placed under the command of the 5001st Composite Wing of the AAC, headquartered at Ladd AFB in Fairbanks. Thereafter it again became known as Nome Field. But, as noted earlier, through all these years it was mostly called "Nome" as if the city and the airfield were synonymous. The reader is cautioned to not be confused by numerous quotations from documents cited herein in which the military airfield is called by different names.

### **1.2 A Personal Quest.**

The original motivation for my 1997 visit to Nome was a personal quest to gain more understanding of the role of Nome Field during my time there in 1955-56.

- What was the mission of Nome Field? At the time no one told us what our mission was other than to keep the airfield open, which was no small task. Why were we keeping the airfield open? We thought it was for the support of the northwestern coastal radar sites and White Alice.
- How did Nome Field and the northwestern coastal radar sites fit into the broader picture of the Cold War?
- What was the importance of the Anvil Mountain radio relay site to the northwestern coastal radar sites? How significant an event was the fire that destroyed the Anvil Mountain site in April 1956?

- Was it really true that the mission of AFRS was to ensure the loyalty of the civilian population?
- Why were the physical facilities at Nome Field in such a state of disrepair and neglect?
- When typically the Air Force has a ratio of maybe one officer to about ten to fifteen airmen (for example AC&W sites had 115 airmen and 7 officers), how did it happen that one officer (a mere first lieutenant) was in charge of an airfield, all its appurtenant equipment, and a staff of circa 120 (including 17 civilians)? This seemed particularly incredible given Nome Field's apparently important Cold War mission, the remoteness of Nome Field from source of Air Force support at Ladd AFB, 550 miles inland, and the fact that Nome Field was probably, in all the world, the closest military air field to the Soviet Union capable of supporting jet aircraft.
- When and why did the base close, and what were the circumstances?

### 1.3 Overview.

Nome Field was constructed in 1941 and was closed as a military airfield in 1956. Its fifteen short years were rich in history. Nome Field began as a bomber base for Bering Sea patrol, and was the site of the first major airlift of military men and equipment, Operation Bingo, intended to counter a perceived Japanese threat to Nome following the Japanese invasion of the Aleutians.

As the Japanese threat receded, Nome Field (by then named Marks Field) became an Air Transport Command base and over 7,800 planes, fifty-six percent of all Lend-Lease aircraft delivered to the Soviet Union during World War II, were delivered through Marks Field. Marks had the distinction of being the only American airbase within the Soviet leg of the ALSIB ferry route.

Soon after the end of World War II, the ATC relinquished the base to the Eleventh Air Force (soon to become the Alaskan Air Command) which continued to maintain a military presence on the northwest coast of Alaska. Activities included the Arctic Indoctrination School, and intelligence activities which were facilitated by the proximity to the Soviet Union. By the late forties, the Cold War had intensified, and a doctrine for defense of Alaska was developed which did not include Marks. Marks was deemed too far forward to be defensible and was to be closed. However, a new mission developed as work began in 1951 on remote sites to provide early radar warning of Soviet attack and the appurtenant communication system (White Alice). These sites were so remote that a staging area was needed and Marks met this need. Marks was downsized, renamed Nome Field and responsibility for operating Nome Field was transferred to the 5001st Composite Wing at Ladd AFB in Fairbanks. The 5001st continued to operate Nome Field in support of the coastal radar sites and White Alice for five years. In late 1956, as White Alice construction wound down, Nome Field was determined to be no longer needed to carry out the mission of the Alaskan Air Command and the base was closed.

### 1.4 Nome, the Setting.

Prior to the gold strike in 1898, the site of the future Nome was treeless tundra along the Bering Sea rising from sea level to the crest of Anvil Mountain (1050 feet above sea level) about five miles inland. The Bering Sea is ice-bound for approximately nine months each year. The entire area is underlain by permafrost except the beach strand. Because of its far northern latitude, summers are a time of perpetual daylight/twilight and winters are a time of long nights and short daylight/twilight. Native Americans had no settlements in the vicinity and there was no reason for



a settlement other than the discovery of gold. In the early years of the gold rush Nome may have had a population of over 30,000 but Nome experienced hard times, and much of Nome was destroyed by several fires and numerous Bering Sea storms. By 1940, on the eve of U.S. involvement in World War II, Nome's population had stabilized at about 1500.

Nome at that time, and through the conclusion of this history in 1956, could be best be described as a frontier settlement. There were no paved streets, the business district had wood sidewalks, there was no water or sewer system, and no trash collection. There was an electrical plant and electrical distribution and there were telephones. The telephone connection with the outside world could handle one single call at a time. The harbor was closed for nine months because of ice and all cargo had to be carried to the harbor by barges from ships anchored offshore.

### **1.5 Foundations Laid, 1920 to 1940.**

Prior to the establishment of a military airfield at Nome, there was an extensive record of military air activity focused on Nome. Nome's remoteness and strategic location in the far north, astride the polar routes, and at the juncture of Siberia and North America, made it an attractive destination for flights aimed at demonstrating aviation's capability. The fame of Nome, gained in the gold rush and the epic delivery of serum to Nome by dog sled during the diphtheria epidemic of 1925, was an assurance that flights would receive publicity and not go unnoticed in the press. Many of the early flights are of historic importance to military aviation as they were the first time these feats had been accomplished and they demonstrated capabilities that in later years became fundamentals of Air Force strategy.

The earliest military air activity in Nome, and in Alaska, was the 1920 flight of the Black Wolf Squadron to Nome. Brig. General Billy Mitchell sent the Black Wolf Squadron, a flight of four DeHavilland DH-4 biplanes, from Long Island, New York to Nome, a 9,000 mile round trip to demonstrate the strategic importance of Alaska and the importance of air power. It was the first long distance military flight outside the continental United States and they were the first military planes in Alaskan skies. The flight was made with no aeronautical charts, no weather reports, no airfields, and with the benefit of few navigation instruments. Black Wolf Squadron departed Long Island on 15 July 1920 and landed at Nome on the parade grounds of the by then abandoned Fort Davis, several miles east of Nome, on August 23, 1920. The feat is marked by a monument to the flight at the Fort Davis site. (Ref.34, pg. 10; Ref. 42, pg. 2)

Another early flight of note was the first transpolar flight, from Spitzbergen to Teller (about sixty miles from Nome) by Roald Amundsen in the dirigible Norge in 1926. While not a military flight, it demonstrated the military importance of transpolar flight. A monument on Front Street in Nome recognizes Amundsen's feat. Teller was also the base for Carl Ben Eielson's 1929 flight, which cost his life, to recover passengers and furs from the American trading schooner Nanuk stranded in the ice on the north coast of Siberia about 500 miles northwest of Nome. The search for Eielson and his mechanic, Earl Borland, was probably the largest winter search and rescue operation ever mounted to that time and involved both American, Canadian, and Soviet airmen. American military aircraft were unable to participate but this shortcoming later became an argument in support of an air base in Alaska for cold weather testing and training (ultimately Ladd AFB in Fairbanks). Eielson is remembered today by the Strategic Air Command base 26 miles east of Fairbanks named in his honor. (Ref. 42, pgs. 7, 8)

## History of Military Airfield at Nome, Alaska

In 1929, Capt. Ross G. Hoyt of the War Plans Section, Office of Chief of the Army Air Corps conceived a round-trip flight from Long Island to Nome to demonstrate that pursuit aircraft could be employed as long-range escorts for bombers. His P-1C Hawk, with modified fuel tanks, left Long Island on 18 July 1929 and reached Nome on 20 July 1929. Although he crashed in the mountains, several hundred miles north of Edmonton, Alberta, on his return flight, Capt. Hoyt's flight to Nome demonstrated that fighters could quickly be deployed over long distances. Today such deployments are one of the keystones of Air Force readiness. (Ref. 42, pg. 12)

In 1934 Col. Hap Arnold won his second Mackay Trophy and a Distinguished Flying Cross by leading a flight of ten Martin B-10s from Bolling Field outside Washington, D.C. to Fairbanks, leaving Bolling on 19 July 1934 and arriving in Fairbanks five days later. Arnold ultimately became a five-star general, the first, and to this date only General of the Air Force. The purposes of the flight included identifying possible airfield locations, and determining the feasibility of deploying air units to Alaska in emergencies. The flight also demonstrated that by flying over water between Juneau and Seattle, military aircraft could reach Alaska without passing through Canada and further demonstrated that the range of aircraft had increased to the point that the United States could no longer depend upon the Pacific and Atlantic Oceans as barriers against foreign aggression. B-10 number 153 was named "Nome". The B-10s were supported by Capt Hoyt leading two O-38 aircraft flying in advance of the B-10s. On 26 July, Arnold dispatched Hoyt's two O-38s to Nome to survey the potential for military airfields west of Fairbanks. Despite several days of layover in Nome because of bad weather, Hoyt reported that west of Fairbanks only Nome had an airfield that was suitable for military aircraft. Upon his return to Washington, Arnold recommended that an air base be established at Fairbanks.

Efforts of Arnold and many political leaders led to the authorization and funding of the first air base in Alaska at Fairbanks (ultimately to be named Ladd AFB) for cold weather testing and training. Lands were reserved at Fairbanks in 1937, minor construction began in the summer of 1939; funding was provided in fiscal year 1940 and heavy construction began in the summer of 1940. (Ref. 42, pgs. 16-21; Ref. 43 pg. 50)

In 1939, on the eve of World War II, there were not only no military air fields in Alaska, the only suitable civil air fields for military use were Anchorage, Fairbanks, Juneau, and Nome and these were unusable during the spring thaw. (Ref. 42, pgs. 27, 31)

## 2.0 World War II Overview

The situation evolved rapidly during the World War II years. First, in response to the Japanese threat, an important airfield and garrison was developed. Initially known as Nome Field, the airfield was renamed Marks Field in honor of Major Jack Marks shortly after his death on 17 July 1942. Then the airfield began to serve as a key point on the ALSIB route for ferrying aircraft to the Soviet Union while continuing to be a key defensive position against the Japanese. As the ferrying operation increased in scope and the Japanese threat receded, the ground troop garrison was removed in late 1944 and the aircraft ferrying operation became the principal operation at Nome until it was completed in September 1945. Then came postwar demobilization which diminished the base until it became, in the early postwar years before the onset of the Cold War, not much more than a military outpost needed to show the flag in northwestern Alaska.

Prior to 1940, the only military presence in Alaska was a garrison of 300 at Chilkoot Barracks at Haines, a small naval air station at Sitka, and a few hundred men of the Army Signal Corps scattered through the Territory. According to the 1940 census, Alaska's population was 76,000 people, including 1,000 military. (Ref. 30, pgs 2,3; Ref. 34, pg. 11; Ref. 42, pg 27)

By 1940, it was obvious that there probably would be a Pacific War with Japan and a consequent need for defense of Alaska. In 1939 construction began at Ladd Field (based on a 1934 Congressional authorization) and in 1940 funds were appropriated for primary military bases at Fairbanks (Ladd Field), Anchorage, Kodiak, and Dutch Harbor. (Ref. 34, pg. 12) It seemed clear that Japan was the potential enemy and the Aleutian Islands, only 650 miles from Japan, became the focus. However, for a short time, focus was diverted to the northwestern Alaskan coast. In the late summer of 1939 Germany and the Soviet Union signed a non-aggression treaty. "Rumors rampantly circulated that the Soviet Union and Germany planned a joint invasion of Alaska from Siberia." There were rumors of Soviet fortification of Diomed Island. Plans were developed "to fortify Alaska's coast from Kodiak to Point Barrow, with forward air bases at McGrath and Nome, to protect against hostilities along Alaska's western coast." (Ref. 34, pg. 15) However, in September 1940 Japan joined the Axis powers, and by June 1941 Germany invaded the Soviet Union. Thereafter, it became clear that Japan, not the Soviet Union, was the threat and the planning focus returned to the Aleutian Islands.

In 1941 an extensive program was begun to construct emergency military airfields to support the primary military bases. The lead was placed with the Civil Aeronautics Administration (CAA). Nome and Naknek (King Salmon) were the first airfields undertaken. On 26 June 1941 the CAA contracted with R.J. Sommers Construction Co. of Juneau, Alaska for \$3.5 million of grading, surfacing, and paving of runways at the site that was to become Marks Field. The E-W runway was to be 4200' x 300' and the N-S runway was to be 4700' x 300'. Work was begun immediately and was completed late in 1941. (Ref. 35)

Shortly after the CAA began runway construction, military construction began on the infrastructure that would develop the runways into a military airfield. The CAA obtained the needed property from the United States Smelting Refining and Mining Company in the form of a long-term lease on 23 May 1941 (revised 29 November 1945); the Army obtained rights for military activities by a use permit from the CAA. Given that almost all land in Alaska was owned by the federal government at the time, it was unusual that a site would be selected that required acquisition of property rights. Perhaps the heaped dredge tailings and consequent mitigation of

permafrost made the site attractive. As will be discussed later, the decision to lease rather than locate on federal land was a fateful decision that ultimately helped decide the relatively short life of the military airfield at Nome.

Initially after the Nazi invasion of the Soviet Union, there was concern that Japan would soon attack the far eastern frontier of the Soviet Union. On 3 July 1941, General George Marshall placed Army forces in Panama, Hawaii, and Alaska on alert. In Alaska, General Buckner ordered his handful of B-18 bombers from Elmendorf Field to Nome for the purpose of patrolling the Bering Sea. When it became obvious that Japan's Kwantung Army was remaining behind its border fortifications in Manchuria, General Marshall canceled the alert. Buckner, however, kept his B-18 bombers on Bering Sea patrol until September. (Ref. 46, pg. 16)

Initially the mission at Nome was to provide a bomber operating base and a garrison for protection of Alaska's northwest coast and for patrolling the Bering Sea. Initial construction supported that mission and was focused in the vicinity of the airfield. After completion of the airfield grading in late 1941, B-18s of the 28th Composite Group operated from the field. At that time, the runways were as yet neither paved nor supported with military infrastructure and troops were housed in tents.

In early June of 1942, the Japanese attacked Dutch Harbor and occupied the Aleutian Islands of Attu and Kiska. There were two explanations for the Japanese strategy: (1) it was a screen for the Battle of Midway, and/or (2) after the Doolittle attack on Tokyo in April 1942 the Japanese were concerned that future attacks could be launched from airfields in the Aleutians and hence the western Aleutians were occupied to preempt development of American airfields that could attack the Japanese mainland. (Ref. 30, pg. 188)

Shortly after the occupation of Attu and Kiska, a Japanese message intercepted at Pearl Harbor indicated the Japanese might be planning to invade the mainland at Nome. "The garrison and the town of Nome were at full alert at this time and all plans for evacuation of civilians toward the interior were ready." (Ref. 67, frame 790) Although U.S. Navy air and sea patrols could find no sign of the enemy force, Army Chief of Staff General Marshall ordered the reinforcement of the Nome garrison, which at the time consisted of a quartermaster company. Gen. Simon Bolivar Buckner, commander of the Alaskan Defense Command, ordered a massive airlift, known as "Operation Bingo," to bring in troops and supplies for the defense of Nome. Gen. Buckner commandeered more than 40 commercial airliners that had gathered at Edmonton, and ordered them to fly troops and supplies 600 miles from Anchorage to Nome. Operation Bingo began on 21 June 1942 and in 36 hours more than 2,000 men and tons of war materiel were flown in to garrison the town and airfield. The airlift eventually brought in almost one-half million tons of equipment, anti-aircraft guns and supplies. By 4 July 1942 the scare and airlift were over. The 56<sup>th</sup> Fighter Group, equipped with P-39Fs and eight B-24Ds painted in desert camouflage were dispatched to Nome to support the garrison and carry out Bering Sea patrols. (Ref. 30, pg. 97; ref. 42, pg 70 and 84) A small Signal Corps (ACS) detachment was sent to the Pribilof Islands to determine if the Japanese had occupied the Pribilofs and observe and report on Japanese headed toward Nome. (Ref. 67, frame 675)

Operation Bingo was significant because it was the first time that a large body of American troops had been moved and supported by air. Although on a much smaller scale and duration, Operation Bingo has been cited by some as the model for the Berlin Airlift.

Operation Bingo substantially changed the base. Thereafter, the Japanese threat and the need for defense influenced construction for at least the next year. Emphasis was on defensive positions, anti-aircraft and coastal artillery, and dispersal; facilities were widely scattered over a nineteen square mile area between the airfield and the base of Anvil Mountain. The terrain was a decisive factor in the layout. There was no natural cover, the only vegetation being tundra and occasional low-growing willow brush. The soil underneath the tundra, principally gravel, is perpetually frozen to bed rock, which is about 100 feet deep on the average, making it difficult to construct and maintain defensive positions. Consequently, the best protection from bombing lay in wide dispersion of units and materiel. (Ref. 67, frame 790)

On 27 August 1942, Big. Gen. Edwin W. Jones arrived and assumed command.

With the freeze up in the fall of 1942, the scare that caused Operation Bingo subsided and it became obvious that it was highly unlikely that the Japanese would seek to occupy and establish a base in an area that was ice bound for nine months each year. Never-the-less, the threat of Japanese attack remained a concern until Attu and Kiska were retaken in May-August 1943.

Ferry operations for the lend-lease delivery of aircraft to the Soviet Union began in September 1942 and thereafter forward support of the ferry operation became of growing importance at Marks Field. Fairbanks was the turnover point for aircraft delivered to the Soviet Union because Nome was deemed too vulnerable to Japanese attack and the weather too unpredictable. Marks was the last stop in Alaska before flying to Siberia. Aircraft deliveries accelerated and soon became Mark's principal mission.

Throughout World War II there were two distinctly different Army Air Force operations in Alaska. The Air Transport Command was focused on the northern Alaska ferry route and the Eleventh Air Force was focused on the war effort in the Aleutians. Marks Field was unique in being the only place where the two overlapped.

As the Japanese threat receded, the base became chiefly an Air Transport Command airfield and it became obvious that dispersal was not necessary and was highly inefficient in the difficult weather of the Seward Peninsula. Consequently, the initial defensive construction was replaced and reconfigured into a more concentrated area that could efficiently support the ALSIB ferry operation.

On 4 October 1944, General Jones departed Nome; the diminished garrison at Nome no longer justified a general officer. By late 1944, the last of the ground troops for the defense of the airfield and western Alaska were withdrawn. The new commander was Lt. Col. William T. Kim. Upon completion of the Lend-Lease program, in September 1945, more than 7,900 aircraft were delivered to the Soviet Union through Nome. Lend-Lease aircraft ferrying is discussed in more detail in the next section.

Construction and reconstruction was continuous during World War II as the base developed and the mission changed. Early dispersed construction, 1942 and early 1943, was demolished and much of what is shown in post-war aerial photos appears to have been constructed in 1943, 1944, and perhaps 1945. By 1945, the base infrastructure included three hangars, housing for 4,000 men, and storage for over three million gallons of aviation gasoline. (Ref. 12)

## History of Military Airfield at Nome, Alaska

During summer, when the Bering Sea became ice free for a short time, the base could be supplied by sea. All sea-borne cargo was lightered by barge from ships standing offshore in deep water to the docks of the Loman Commercial Company. Fuel was pumped to a tank farm about a half mile from the wharf. A suspension bridge was constructed to carry the fuel transfer lines across the Snake River. (Ref. 35)

The AFRS station began operation during World War II with a 100-watt transmitter. It was at that time a typical AFRS operation designed to inform and entertain the troops. Later, in 1951, it was to evolve its own unique and special mission that will be discussed in greater detail later in this history. (Ref. 30)

The ACS (Signal Corps Alaskan Communications System), which had been at Nome since 1909 or earlier, played an important role in development of the base. "Prior to construction of the first AACS (Army Airways Communications System) radio station at Nome, the ACS handled all such traffic for the Air Forces and assisted in the installation of the first AACS stations at Nome in the fall of 1942." (Ref. 67, frame 806) Thereafter, the Marks AACS detachment operated the control tower and aids to navigation and manned outposts where aids to navigation were maintained and facilities shared with weather personnel. "The original AACS receiver station was adjacent to the air base. In 1944 ACS, AACS, and CAA moved their receiver stations to Cape Nome where the distance from sources of many electrical disturbances in Nome made possible excellent reception." (Ref. 67, frame 808) The remote receiver station "on the flat behind Cape Nome" with associated antenna system and 13-1/2 miles of cable, was started 10 June 1944, in operation 14 November 1944, and completed 7 December 1944. The cables served ACS, AACS, and CAA, the latter two being combined and located two miles from the ACS station. (Ref. 67, frame 814)

A guest house was constructed in 1944 and was commonly understood to be an alternative site for the Roosevelt/Churchill/Stalin conference held at Yalta in early 1945. However, no written documentation for this understanding has been discovered.

At the beginning of World War II, the narrow-gauge Seward Peninsula Railroad ran northwest 86 miles from Nome to Shelton. About ten miles of the railroad was rebuilt and operated by the Army. (Ref. 34, pg. 59) A train was pulled by automobiles in the summer and dog teams in the winter. Due to the tundra conditions, the roadbed sank into the soil every spring. However, despite the poor roadbed, 100,000 tons were hauled during the Nome buildup in the winter of 1942. (Ref. 30, pg. 65)

Prior to being named Marks Field, the air field was known as Nome Field. No documentation was found on exactly when the air field was named Marks Field, but it was probably not long after Major Jack Marks, flying a B-17E, was shot down and killed by a Rufe (Zero with floats) over Kiska on 17 July 1942. (Ref. 42, pgs. 86,87) The first reference to Marks Field found was in September 1942. Thereafter, Marks Field appeared to be the name of the airfield and its immediate surroundings while the larger installation was called the Nome garrison. The ground troops departed in December 1944 and by 1945, most remaining facilities supported the airfield and were concentrated around the airfield and hence by 1945 the name Marks Field accurately described the entire Army Air Force installation at Nome.

In late summer 1945, the new commander at Marks was Col. James H. Potter; the exact date of Col. Potter's arrival is not known but was probably August or September. (Ref. 46, pg. 131)

The role of Marks Field during World War II is covered in Nome, City of the Golden Beaches (Ref. 1, pgs 161-177) which includes the Japanese attack on Dutch Harbor, the occupation and recapture of Kiska and Attu, Operation Bingo, the Alaska Territorial Guard, and the ferrying of aircraft to the Soviet Union. For a more general background on World War II in Alaska, excellent references are the four volumes of The Forgotten War. A Pictorial History of World War II in Alaska and Northwestern Canada (Ref. 30-33) and World War II in Alaska. (Ref. 34) Marks Field receives mention in short isolated references in these publications.

## 2.1 Lend-Lease Delivery of Aircraft to the Soviet Union

Beginning in September 1942, the Lend-Lease delivery of aircraft to the Soviet Union over the ALSIB route began and would assume increasing importance to Marks Field until the end of the program in September 1945. The route through Nome would ultimately become the most important route for ferrying aircraft to the Soviet Union. The Alaska-Siberia Connection, The World War II Air Route (Ref. 46) provides an extensive description of the Lend-Lease aircraft ferrying activities. Top Cover for America provides an excellent description of the ALSIB operation and a map of the ferry route. (Ref. 42, pgs 149-156)

Lend-Lease became law on 11 March 1941. It authorized the then neutral United States to transfer weapons, food, or equipment to any nation (principally Great Britain at the time) whose fight against the Axis aided U.S. defense. In June 1941, Germany invaded the Soviet Union and Lend-Lease aid to the Soviet Union was authorized 7 November 1941.

Concurrently in 1941, because of concern about the Japanese threat, the Canadians began to improve existing airfields and build additional airfields between Edmonton, Alberta and Alaska. This route, developed for ferrying aircraft and supplies to the Alaskan Defense Command, extended 1900 miles from Great Falls, MT to Fairbanks and was known as the Northwest Staging Route, or the Northwest Route. A plan soon developed to use this route together with a new route, to be constructed across Siberia, as a ferry route for delivery of Lend-Lease aircraft to the Soviet Union. The new route, to be known as the ALSIB route, would extend from Fairbanks across Alaska, through Nome, and 3,500 miles across Siberia to a railhead on the trans-Siberian railway. The end of the Northwest route and the start of the ALSIB route was Ladd Field. The leg from Fairbanks to Nome via Galena was 531 miles, 277 miles to Galena and 254 miles from Galena to Nome. The leg from Nome across the Bering Sea and the Bering Strait to the first airfield in the Soviet Union, Uelkal, was approximately 450 miles. (Ref. 46, pg. 27 and Ref. 51, frame 1393)

Soviet planning was influenced by a concern that the Lend-Lease program not be used by the Japanese as a justification to renounce the Soviet-Japanese Neutrality Pact. Therefore, the route selected was far enough north that concern about interference by the Japanese was largely mitigated. (Ref. 46, pg. 25)

Negotiations were protracted and Soviet demands and Soviet secrecy seemed to frustrate the American goal of providing assistance to the Soviets. Issues were the number and types of aircraft, where they would be turned over to the Soviets, and whether Americans would be allowed to enter Siberia. After the Japanese attack on Pearl Harbor, America and the Soviets became allies, yet the negotiations continued to be frustrated. Without having yet agreed to the route and without telling the Americans, when the weather permitted in early 1942 the Soviets began construction of the Siberian airbases needed to support the route. Negotiations with the Soviets continued but it was not until 8 June 1942 that the Soviets agreed to operation of the ALSIB route.

Though probably a coincidence, approval by the Soviets came just hours after the Japanese attack on Dutch Harbor (3 June) and the occupation of Attu and Kiska (7 June). American approval would not be forthcoming for several more months. (Ref. 46, pgs. 28-31)

While the ALSIB negotiations lagged, development of the Northwest Staging Route continued. The Northwest Route was needed for the defense of Alaska and Canada and was therefore necessary whether or not there was to be a ferry route to the Soviet Union. The Eleventh Air Force, a unit of the Alaskan Defense Command, and Northwest Airlines (under contract to the Army) began use of the Northwest Staging Route to ferry aircraft and supplies to the Alaskan Defense Command. (Ref. 51, frame 1359) On 20 June 1942 the Army Air Force established the new Air Transport Command and on 26 June 1942 responsibility for operating the Northwest Route was assigned to the ATC's Ferrying Division. Ferrying of aircraft to the Eleventh Air Force began immediately.

The Alaska Defense Command was not notified of plans for use of the Northwest Route and ALSIB for ferrying aircraft to the Soviet Union until late August 1942. On 27 August 1942 General Buckner, commander of the Alaskan Defense Command, announced that ATC will establish, maintain, and operate an air route from Great Falls to Fairbanks for delivery of aircraft to ADC and to the Soviets at Ladd and "ordered the commanding general of the Eleventh Air Force, the commanding general at Nome, and the commanding officer at Ladd Field to plan for and give necessary support to the ATC's ferrying operations." (Ref. 46, pgs. 35, 36) ADC was to provide all administration, base operations, supply, and communications for ATC. The commanding officer at Ladd was appointed liaison officer between ADC and ATC. Alaskan stations along the route, with the exception of Nome and McGrath were declared sub-posts of Ladd.

The airfields to be used by ATC were under the control of the Eleventh Air Force but the focus of the Eleventh Air Force was on the Japanese threat in the Aleutians. Other than Nome, little attention had been paid to the airfields in the north which would be needed by ATC. The Nome garrison, commanded by Brig. Gen. Edwin W. Jones, and the adjacent Eleventh Air Force base, newly designated as Marks Field, were still essential to the Bering Sea defenses but could accommodate joint use by the ATC. An ATC inspection team reported on the status of sites in early August 1942. At Nome the N-S runway was being paved and completion was expected by winter. The runways were in "pretty fair condition" but the rest of the facilities at Nome were in very poor condition. "For ferrying operations the field should be used as a staging point and all effort should be made to keep aircraft from remaining at Nome overnight. The question of supply at Nome is serious and there is always danger of Japanese attack." (Ref. 51, frame 1313)

The ATC Alaskan Sector was established 26 August 1942; with headquarters at Ladd Field. On 1 September 1942 Maj. General Follett Bradley advised the Soviets of American approval of the ALSIB route. (Ref. 46, pgs. 33,34)

The first Soviets arrived in Nome, enroute to Fairbanks, on 3 September 1942. The first flight, consisting of twelve A-20 bombers, was delivered to the Soviets in Fairbanks and flown to Nome on 29 September 1942 and after delays for repairs at Nome departed for Siberia on 6 October. (Ref. 46, pg. 46,47) From this small beginning, the organization and effort invested in the operation slowly began to produce results despite the remoteness, difficult weather, and difficult logistics of the ALSIB Route. It eventually grew to become the exclusive route for ferrying aircraft to the Soviet Union.



The Alaska Wing of ATC was activated 17 October 1942 and assigned responsibility for operations from Edmonton to Nome. The Ferrying Division was relieved of all responsibility and command over the Northwest Route but continued to be responsible for ferrying aircraft. The air base squadrons at Edmonton and Fairbanks were transferred from the Ferrying Division to the Alaska Wing of ATC. (Ref. 51, frames 1321, 1352)

Because of concern about intervention by the Japanese, the delivery of planes by the ALSIB route was a secret, though it was a poorly kept secret and no doubt almost everyone in Alaska knew of its existence. The ALSIB route was not officially acknowledged until 23 November 1943. (Ref. 46, pg. 99; Ref. 51, frame 1375)

Ladd Field was originally established to be the Army Air Corps Cold Weather Test Facility. However, most of the Cold Weather Test Detachment's troops had been sent to Nome and merged with troops massed at Nome on 22 June 1942 to repel the anticipated Japanese attack. Later, when the immediate threat to Nome faded, the CWTD was formally reestablished and its men and planes returned to Ladd Field on 15 October. (Ref. 46, pg. 35) "At Nome, an Eleventh Air Force base squadron and related service support units arrived on 2 October 1942 to relieve the CWTD personnel departing from Marks Field. By mid October, an ATC team from Ladd Field came in to establish an ATC presence and assist in the ferrying activities. Later, an ATC control officer and additional ATC service personnel were assigned to Nome. However, the Eleventh Air Force base squadron provided most of the personnel needed to prepare Lend-Lease aircraft for crossing the Bering Sea." (Ref. 46, pg. 49)

In May [1943], all of the Alaskan air fields involved in the ATC ferrying mission passed to ATC control. However, Nome is not listed among the airfields passing to ATC control and hence it is believed that Nome remained an Alaskan Defense Command base with an ATC presence, even after the departure of the Eleventh Air Force. "The Eleventh Air Force removed its personnel from Marks Field to the Aleutians battlefield in June (the invasion of Attu, a 19 day battle, began on 11 May 1943 and Kiska was retaken on 15 August 1943), leaving ATC's sixty-man detachment with the total responsibility for performing any necessary service on ALSIB route aircraft" In addition, the garrison of ground troops remained. (Ref. 46, pg. 58)

By 30 June 1943 1,107 aircraft had been delivered (Ref. 46, pg. 57) and in June 1943, a then record of 329 airplanes were delivered in a single month. (Ref. 46, pg. 78) However, unpredictable weather along the route made it difficult to sustain a constant rate of delivery. By early August 1943 bad weather in eastern Siberia caused Soviet aircraft to stack up and 132 Soviet aircraft were parked near the airfield at Marks Field waiting for favorable weather. (Ref. 46, pg. 84)

Marks Field was frequently closed in by coastal fog in the summer. "Official U.S. weather reports for the months of July, August, and September 1942 show that of 92 days only five were clear." (Ref. 67, frame 810) Consequently in the summer and fall of 1942 the Moonlight Springs satellite field was developed 2.5 miles inland and several hundred feet higher than Marks Field and it served as an auxiliary field during the summer when Marks Field was weathered in. A tee hangar still exists (1997) at the site of the old Moonlight Springs satellite field and is understood by Nome residents to be a hangar used by the Soviet Union (personal recollection). From Sept 1942 to Sept 1945 up to 75 Soviets were stationed at Nome. At some point not yet determined, Moonlight Springs was turned over to Soviets for their sole use (Ref. 35).

## History of Military Airfield at Nome, Alaska

During the final weeks of 1943, three Army Air Force service squadrons acquired by ATC were assigned to the ATC Alaska Wing, one each for Edmonton, Whitehorse, and Nome. (Ref. 46, pgs. 58, 104)

Aircraft deliveries continued to accelerate; in the year ending 30 June 1944 3,279 aircraft were delivered. The ALSIB route became so proficient that in the year beginning July 1944, ALSIB became the exclusive route for delivery of aircraft to the Soviet Union and subsequent to July 1944, 3,538 aircraft were transferred. (Ref. 46, pgs. 111-113) Prior to exclusive use of the ALSIB route, there were alternative routes in the Middle East, by sea to Murmansk, and other locations but the route through Canada, Alaska, and Siberia permitted aircraft to be delivered to the Soviet-German front far sooner than the alternative routes.

On 1 July 1944 the Alaska Wing of ATC was elevated from wing to division status with no change in command.

As the Japanese threat receded, ground troops were withdrawn. On 4 October 1944, General Jones departed Nome; the diminished garrison at Nome no longer justified a general officer. General Jones was highly thought of by the Soviets; he made an effort to gain their trust and the Soviets reciprocated with considerable respect. Upon his departure General Jones was awarded the Order of Suvorov, the highest Soviet medal given to foreigners. (Ref. 46, pg. 115)

Delivery of aircraft continued at a rapid rate, averaging 270 aircraft per month (Ref. 46, pg. 128), until delivery was suspended on 12 May 1945, shortly after the surrender of Germany. Delivery soon resumed again to support the anticipated Soviet entry into the war against Japan, but at a much lower rate; no additional deliveries were authorized and the deliveries scheduled for May and June were stretched out to cover the period May to early September.

The last aircraft delivery was 2 September 1945, V-J Day. On 2 November 1945 operational control of Ladd Field and the other ATC airfields passed from the ATC to the Eleventh Air Force. Marks was not included in the transfer because through the war years Marks had remained an Alaska Defense Command (Eleventh Air Force) base even though it had such a major ATC presence that it was normally considered to be an ATC base. In November 1945, the control tower at Moonlight Springs was closed. (Ref. 52)

During the life of the program, September 1942 to September 1945, the Soviets accepted 7,924 planes in Fairbanks. (Ref. 46, pg. 56) The same number passed through Nome, minus the few that may have crashed between Fairbanks and Nome. By 1944 ALSIB had become the exclusive route, and overall fifty-six percent of the aircraft that reached the Soviet Union during World War II flew over the ALSIB route. (Ref. 46, pg. xi) The ALSIB route also served as a conduit for VIPs traveling between the United States and the Soviet Union: "Ambassadors, generals, diplomats, and political personalities all passed through Alaska in what seemed an endless stream." (Ref. 46, pg. 107)

The Northwest Staging Route, originally developed to support the Alaskan Defense Command, was never used to a great degree to support ADC because the Japanese never interrupted the marine shipping routes to Alaska and therefore the Northwest Staging Route was used almost exclusively to support the delivery of aircraft to the Soviets.

In May 1990, twenty-seven Soviet veterans plus Soviet officials and media were welcomed to Nome, Fairbanks, and Anchorage and in July 1992, thirty-eight veterans came to Fairbanks to celebrate the fiftieth anniversary of the ALSIB. "The Soviet veterans have suggested that an appropriate memorial to Soviet-American wartime aviation collaboration be erected at Fairbanks, Nome, or both." (Ref. 46, pg. 140)

## **2.2 Marks Field Compared to Ladd Field**

As the last point on American soil, Marks would have been a logical point for transfer of aircraft from American to Soviet control. However Marks, in 1942 and early 1943, was on the frontline and was deemed too vulnerable to Japanese attack and the weather too unpredictable to be the transfer point. Thus Ladd Field was chosen.

After May 1943, Ladd was an ATC base and was not part of the Alaskan Defense Command. Ladd was the transfer point; aircraft delivered to Ladd by the ATC were accepted by the Soviets when the aircraft met Soviet standards, or were repaired or modified to meet Soviet standards. Probably for the reason that it was the transfer point, Ladd Field became the headquarters of the Alaska Wing of the ATC.

In contrast, Marks role is not clear in retrospect. The Soviets apparently used the 531 miles from Fairbanks to Nome as a shakedown run for the aircraft, then made final repairs and adjustments at Marks before the long Siberia run. Also, Marks served as a staging area where aircraft waited for favorable weather before proceeding; at times as many as 175 Russian planes were parked at Marks and Moonlight Springs with plenty more space available.

Ladd clearly had the more important ATC role compared to Marks, yet for most of the World War II years the Nome garrison was commanded by a Brigadier General (B/G Edwin W. Jones) while Ladd was commanded by a Colonel. The Nome garrison, Marks Field, and General Jones were part of the Alaskan Defense Command, not the Air Transport Command. Initially, in 1942, it is certainly clear that the Nome garrison had a frontline defensive purpose and the ATC role was relatively minor. However, by mid-1943, the ATC role had become the dominant role at Marks and Marks was considered to be an ATC base even though the Nome garrison was part of the ADC organization. A substantial garrison of ground troops was deployed at Nome to protect the airfield and western Alaska. For example, a 31 January 1944, report lists twice as many ground and service troops as airmen. (Ref. 3, pg. 8) Thus, apparently Marks warranted a commander of higher rank than Ladd until General Jones departure on October 4, 1944. Shortly thereafter, in December 1944, the Nome garrison's ground troops were transferred out.

In 1961 Ladd was transferred to the Army and is now named Fort Wainwright.

## **2.3 World War II Construction Report**

Much of this section is extracted from a military report summarizing military construction at Nome from 1941 to May 1944. The report was furnished by Mary Knodel of the Arctic Trading Post in Nome. (Ref. 3) The report provides understanding of the accomplishments and hardships of the World War II garrison and contains a compelling description of conditions faced in the winter of 1942. The report's intent was to focus on construction activities, hence it contains only minimal discussion of airfield operational activities. Because of its importance, unknown source, and poor condition, the report has been retyped and is included as Appendix A.

## History of Military Airfield at Nome, Alaska

The military post at Nome was established to provide a bomber operating base and garrison for protection of Alaska's northwest coast and for patrolling of the Bering Sea. The initial garrison arrived on 3 Sept 1941 (one officer and five enlisted men). The garrison was preceded by construction crews on 17 July 1941, under the supervision of the Corps of Engineers. The first post commander was probably Major Floyd M. Hayes, Quartermaster Corps, who arrived on 1 September 1941. (Ref. 3, pg. 1)

The airfield was started by CAA contractors before the troops arrived. The airfield, adequate for any type of plane that the United States had in production at the time, consisted of a north-south runway (4,700' x 300') and an east-west runway (4,200' x 300'). (Ref. 3, pg. 1)

Initial military construction during 1942 and 1943 consisted of buildings and utilities. The construction work consisted of three phases: (1) buildings and utilities to accommodate the original garrison; (2) dispersed housing and facilities to care for the large influx of troops during Operation Bingo in June and July 1942, a large war reserve aviation gasoline storage system and a hospital; and (3) runway improvements and extensions, additions to communications facilities and additional housing and facilities. (Ref. 3, pg. 1)

First phase construction. The facilities were intended to serve a Quartermaster company of several hundred men. The original 1941 location for most of the garrison's buildings was east of the north/south runway and north of the east/west runway, i.e. in the northeast quadrant created by the intersection of the runways. An ACS map included in an August 1945 report shows the original Nome garrison location and shows the Snake River at its original location together with a lagoon at the east end of the east/west runway. (Ref. 67, frame 798) By December 1941 most of the outside construction had been completed (Ref. 3, pg. 1)

Second phase construction. After the arrival of Operation Bingo troops in June/July 1942, the new troops overwhelmed the existing facilities and most troops were quartered in temporary camps in tent shelters. The new troops, ten times the size of the original garrison, were widely dispersed over a large area between the airfield and the base of Anvil Mountain including United States Smelting and Refining camps at Little Creek, Center Creek, and Submarine Beach. (Ref. 3, pg. 2) Through incredible effort, all troops were housed by 6 December 1942 and 776 buildings were suitable for use. Second phase construction also included 2,750,000 gallon gasoline system, hospital, and warehousing. Construction of the Moonlight Springs satellite field was also included in the second phase; construction was begun in late June 1942 and the airfield was useable by 15 November 1942. (Ref. 3, pg. 3)

Third phase construction. By 1943, it became evident that the ferrying of Soviet aircraft called for additional facilities. Therefore, an expansion program was authorized and begun in 1943. It included diversion of the Snake River to create additional developable land, erection of a modified Birchwood hangar(200' x 202'), new housing for approximately 1,000 officers and men, a new headquarters area, and relocation of various buildings, and a two-thousand-foot extension to the Moonlight Springs satellite field. A three-quarter mile length of the Snake River was relocated, and 625,000 cubic yards of earth and tailings were moved to create 33-acres of buildable land between the east/west runway and the Snake River. Work was begun on 11 August 1943 and grading was completed by mid-September 1943 and construction of the Birchwood hangar, housing, and other buildings began immediately upon completion of grading. The Birchwood hangar, except for a deferred concrete floor, was complete by 5 May 1944. Phase three also

included a T-hangar adjacent to the Moonlight Springs satellite field, housing and administrative buildings near the southeast end of the satellite field. Phase three also included ACS projects to provide communications infrastructure, including relocation of the receiver station to Cape Nome. Phase three work continued through the first part of 1944 including consolidation of storage, maintenance, and housing and dismantling of buildings in areas no longer used. Fifty-six Quartermaster warehouses, scattered over nineteen square miles, were consolidated into seventeen Cowin warehouses in a central location south of the Snake River in May 1944. Phase three was 95% complete by 31 May 1944. (Ref. 3, pg. 4-6)

By 31 January 1944, strength was 1,845 officers and enlisted men. An additional 1,500 could be accommodated on short notice. Ground forces were twice as numerous as air forces. (Ref. 3, pg. 8)

ground forces and service forces	1,055
air forces	555
Russians	39
resident engineer	196
total	1,845

During the winter of 1942-43 no hangars were available and only canvas nose hangars were used. Russian and American mechanics worked on aircraft with almost no protection from the weather. By mid-1944, there were two T-hangars and the Birchwood hangar at Marks and a T-hangar completed and another scheduled for construction at Moonlight Springs. (Ref. 3, pgs. 9, 10)

It appears that there were one or more construction phases in 1944 and perhaps 1945 that are subsequent to phase three including additional housing, shops, gasoline storage, gymnasium, warehouses, guest house, and utilities building. Authorized, but yet to be constructed, at the time of the May 1944 report were numerous buildings, a central boiler house, relocated warehousing, and the gymnasium (the only remaining building in 1997). Requested for 1944 construction, but not yet authorized, was a new housing area to accommodate 650 men to replace existing housing which had deteriorated because of wrenching and twisting caused by the permafrost. The new housing was to be located in the phase three area created by the Snake River relocation, nearby to the headquarters, the central heating plant and the Birchwood hangar. Runway improvements were not mentioned in the 1944 report. (Ref. 3, pg. 7)

The base familiar to people who visited or were stationed at Marks/Nome Field subsequent to 1944 was the base built by phase three and later construction. Phase one and two facilities were largely cannibalized to construct phase three or were later relocated to the phase three area.

## 2.4 Outposts

In addition to the troops stationed at Nome Field, there were many scattered outposts supporting operations at Nome Field and relying upon Nome Field for command and logistical support. The 122nd Squadron of the Army Airways Communications Systems (AACS) had detachments strung out along the Northwest Ferry Route and Alaska portion of the ALSIB Route. Small detachments of four to ten men were placed in the wilderness between airfields to maintain aids to navigation (122nd AACS Squadron) and report weather (16th Weather Squadron). The 122nd AACS Squadron also had detachments at airfields like Nome, Fairbanks, Whitehorse, and Edmonton to operate the control tower and aids to navigation. (Ref. 52)

A complete list of the outposts supporting Marks was not found. AACS outposts mentioned include: Kougarok, American River, Point Hope, Wales, Mountain Village, Imuruk Lake, Davidson Landing, Gambell, and Point Spencer. There may have been other AACS outposts and there may have been other types of outposts as well. Remains of a World War II Air Warning Service radar site at Cape Rodney is mentioned in Reference 52. Most or all of the outposts were deactivated before the end of 1946.

Kougarok, roughly 45 miles by air north of Marks was typical of the outposts. The Kougarok outpost provided aids to navigation and hourly weather reports to Marks. Living quarters were spartan. Water was transported in barrels three miles from the nearest water source, the Kougarok River, and the river froze solid in the winter. Food, supplies, and mail for outposts were provided by Norseman military aircraft operating out of Marks, and equipped with skis in the winter. Because of the weather, aircraft arrivals were infrequent and unpredictable. It might be three weeks between planes. Full staffing was nine, including both AACS and Weather, but varied depending upon availability of replacements and in April 1946 consisted of just two, one AACS and one Weather. Marks Special Services provided magazines, books, photography equipment, movies, and skis. Movies were seen again and again until everyone knew the dialog by memory. Another entertainment was watching the aurora borealis. Many of the men grew beards and discipline was relaxed. Morale was surprisingly good and a few volunteered for outpost duty. The reports of many outposts were reviewed and they are uniform in the good humor and camaraderie expressed in the reports. From the effort put into the monthly histories, it is obvious that a lot of time was available for that purpose. The Kougarok report notes that the garbage pits attracted wolves and their presence is a problem. "The health of the men at this outpost is very good and the only complaints heard are on the slow mail delivery. If the wolves don't get us we'll probably be OK." Morale at the outposts rose and fell with the ability of the Norseman to fly in with the mail. Nome was regarded as the big city; a three-day pass to Nome was possible but rarely given because of the unpredictability of a return flight from Marks. One three-day pass to Nome was noted in an entire year of monthly reports; probably because after the three-day pass it took two weeks for weather good enough to return to Kougarok. The Road Commission had a nearby camp, and the two outposts relied upon each other for mutual support. Kougarok was decommissioned on 26 September 1946. (Ref. 52)

Point Spencer, 69 miles west of Nome, is another outpost worthy of special mention. An AACS detachment was located at Point Spencer and was supported by small air strip. A bomber field at Point Spencer was proposed and was under construction in 1945. Runways and taxiways, described as 4500'x120', were constructed of pierced steel planks and a number of supporting structures had been erected. Construction was halted when hostilities ceased and the base was abandoned and left uncompleted. Subsequently, exact date is not know, there was concern that the Soviet MIGs were using the abandoned airfield for practice of touch-and-go landings and the Air Force trenched or cratered the runway. Krause describes this runway condition in 1951 (see Personnel Recollections) and Williams recalls this condition in 1955-56. Whether there was any substance to the concerns about Soviet use is unknown. (Ref. 12, frames 333-334 and Ref. 48, enc. 2, pgs. 4-5)

## 2.5 Demobilization

Immediately following the end of World War II hostilities, all focus was on getting the service men and women home as rapidly as possible. The terms of service covered "the duration of the emergency plus six months." In an effort to provide some semblance of order, a point system was

used; the more points an individual had, the higher you were on the list to return to the United States for discharge. Discharge eligibility was based on overseas points. "The War Department considered Alaska to be an overseas area. Therefore, after two years of service in Alaska, an American servicemen became eligible to reassignment." The focus was to get people home as soon as possible after the war and apparently, except in dire emergency, the points ruled without consideration of the impact rotations would have on a unit's ability to carry out its mission. Upon creation of the Alaska Air Command in November 1945, only 26% of its authorized positions were filled. (Ref. 46, pg.110)

In the first half of 1946 staffing was a big problem at Marks due to people returning back to the States for discharge. Many unit's capabilities deteriorated severely and units operated with extreme shortages of personnel, requiring in many cases that the remaining troops work unusually long hours but without the motivation provided by wartime. Consequently, in 1945 and extending well into 1946, morale was extremely low at Marks among those not scheduled for immediate return to the United States. By the middle of 1946, replacements (though poorly trained) began to arrive, unit capabilities stabilized and began to improve, and morale began to show significant improvement as demobilization continued. For example in May 1946, Marks AACS staff, normally about thirty-five, dropped as low as nine and in multiple reports, the AACS history describes Marks as "this vale of tears;" and airmen assigned to Marks were known as "Nomades" (probably intentionally misspelled in order to incorporate all of the letters of Nome). Replacements began to arrive in June and morale improved. By the end of August, staffing had increased to two officers, thirty enlisted, and five Pan Am. (Ref. 52)

While the Cold War was already beginning, its significance was not yet perceived by ordinary service men and women.

### 3.0 Remembering the Cold War

Demobilization was followed by rearming as the Cold War developed. Marks/Nome Field was on the front line during the Cold War and the Cold War was to be the major factor in its mission and operation. Therefore, some background will be provided for perspective.

While it seems unnecessary to review a subject that has been the nation's prime security focus for nearly fifty years, so much has changed in the past decade that it is useful to briefly review the situation that prevailed in the first decade after the end of World War II.

World War II had hardly ended when it became obvious that the Soviet Union had different goals than the western democracies. The western democracies disarmed as rapidly as possible, however, the totalitarian government of the Soviet Union asserted the superiority of its communist ideology and the inevitability of its dominance of the world. On 5 March 1946, Winston Churchill's prophetic speech in Fulton, Missouri warned of an iron curtain being drawn across Europe. In the next several years, through a combination of ideological persuasion and subversion backed by communist armed might, the nations of eastern Europe and China were pulled into the communist block and communist movements threatened Western Europe and most third world countries with subversion and insurrection.

While the communist threat was recognized by many in leadership circles, the western democracies could not easily respond to this threat because of public pressure to return to normalcy after six years of war. The peak Army Air Force strength of 2,372,000 in 1944 had declined to 305,000 in 1947, the year the U.S. Air Force was created. Fortunately, at that time the United States had a monopoly in nuclear weapons. However, because of the reliance upon nuclear deterrent, the United States was ill prepared to respond to subversion or degrees of aggression that did not justify a nuclear response.

Crisis followed crisis. In March 1947, the Truman doctrine confronted communist aggression in Greece. In late June 1948, the Soviets blocked access to Berlin and the Berlin airlift began, the explosion of the first nuclear device by the Soviet Union (August 1949), and the invasion of South Korea by a Soviet proxy (June 1950) with Soviet airmen in MIGs of North Korean marking fighting the Air Force in the skies of Korea, were a sufficient wake up call for the remobilization of American military might. NATO was formed in 1950. Air Force personnel strength was quickly built up to a Cold War peak of 977,000 in 1953 and continued over 900,000 through 1956. As a comparison to illustrate the intensity of the Cold War, today's Air Force personnel strength (1997) is 381,000, about 39% of the 1953 Cold War peak. Efficient means for the delivery of nuclear weapons to targets in the Soviet Union were developed and the strategy of the United States was that the threat of massive nuclear retaliation and the attendant destruction of the assets of the Soviet Union were sufficient to deter any military threat to the United States and western Europe.

Two types of aerial intelligence activities began with the purpose of monitoring Soviet intentions and capabilities: ELINT and penetration.

ELINT operations along the border of the Soviet Union probably began in 1946 and had the purpose of gathering electronic intelligence on Soviet ground radar and intercept capabilities. (Ref. 9, pg. 64) During the 1950s, 22 U.S. aircraft were attacked and shot down by the Soviets. All were on ELINT missions using aircraft which the Soviets were capable of shooting down, such as



the B-29, B-50, C-118, and C-130. All were downed in international air space near the Soviet Union except for a few instances where aircraft wandered into Soviet airspace. (Ref. 9, pg. 217, 218)

Penetration flights into the Soviet Union were probably begun in 1947 and continued until the downing of a U-2 in July 1960. (Ref. 9, pg. 64) Deep penetration flights were for the purpose of acquiring information needed to target Soviet sites, gaining intelligence on nuclear testing, and intelligence on Soviet ICBM progress. They had the further purpose of demonstrating to the Soviets their vulnerability. (Ref. 44) These operations were begun with the B-45, and continued with the B-57, B-47, and U-2. The Soviet Union at this time was unable to match the performance characteristics of the U.S. aircraft and each time the Soviets developed the counter capability, the U.S. was ready with a new and better vehicle. After twenty-four successful U-2 flights, the string ran out with the downing of a U-2 in July 1960 on the eve of the Eisenhower-Khrushchev summit. (Ref. 47, pg. 15)

In 1947, photos from a penetration mission (confirmed by a flyover at Soviet Aviation Day in August 1947) first revealed that the Soviet Union had developed a copy of the B-29. The copy was developed from a B-29 that made an emergency landing in Soviet territory in 1944 after a mission against Japan. The Soviets detonated their first hydrogen bomb in 1953 and would soon have deliverable bombs. With the development of the Bison and Bear bombers (1954 and 1955, respectively), the Soviet Union now had both the weapons and delivery capability to deliver a nuclear strike against targets in the United States. The policy of deterrence had evolved into a policy of mutual assured destruction that made war unthinkable to rational leaders.

The Air Force Strategic Air Command, an offensive nuclear strike force, was the cornerstone of U.S. policy at that time (USAF missiles and Navy submarine launched missiles had not yet been developed). SAC's leaders had no particular interest in defense. The concept was that deterrence assured the safety of the United States and that dollars devoted to defense activities would be dollars diverted from SAC with a consequent diminution of its deterrence capability. Nevertheless, as will be discussed later, there were pressures for an early warning system in the far north that would alert U.S. defenses against an over-the-pole attack.

This was the Cold War setting that shaped events in northwestern Alaska and at the military airfield at Nome.

### **3.1 Overview of Alaska Air Command and Marks/Nome Field, 1945-1956.**

The post World War II era at Marks AFB/Nome Field has two distinctly different periods.

The first period, 1945 to 1950, begins with the end of World War II. World War II was fought in the Aleutians and mainland Alaska did not figure heavily in military planning. "The stepping-stone islands, extending from the end of the Alaskan Peninsula to the remote installations at Attu, were looked upon as territory to be defended ...and here is where American defenses were focused." (Ref. 45, pg. 6)

Ladd Field, the former ATC base, was transferred to the Eleventh Air Force on 1 November 1945. (Ref. 42, pg. 157) On 21 December 1945 the wartime air arm, the Eleventh Air Force, became the Alaskan Air Command. Initially, in 1946 there were major cutbacks and reorganization of military forces in Alaska. Whereas wartime concentration was on the Aleutians, the new emphasis was on

a balanced defense of all approaches to Alaska with bases available for rapid shift of short range units to areas of threat. Two sectors were established; one south of the Alaska Range, and the other north of the Alaska Range. The Army Air Force planned to maintain four major Alaskan bases: Shemya, Adak, Fort Richardson (later Elmendorf AFB) and Ladd Field. The installations at Fort Glenn, Fort Randall, Amchitka, Naknek and Nome were scheduled for detachments to tend transient aircraft as well as other caretaker functions. The 57th Fighter Group was split between Adak, Shemya, and Ladd. Two fighter squadrons at Adak and Shemya provided for the defense of the Aleutians and were supported by programmed AC&W units. The northern (or Yukon Command) had two fighter squadrons at Ladd with forward bases at Nome and Naknek but no provision for early warning. Manpower was drastically reduced. "The Alaskan Air Command had an authorized strength of 7,651 officers and men, but actual strength was less than 2,000. (Ref. 12, frame 354-361 and Ref. 45, pg. 8, 9)

As might be expected from its World War II focus on the Aleutians, headquarters AAC was at Davis Field on Adak. Forces were withdrawn from the Aleutians, and on 1 October 1946 headquarters AAC moved from Davis to Elmendorf. The 449th Fighter Squadron (All Weather) equipped with P-61 Black Widows was relocated from Davis to Ladd in March 1949. By early 1950 only Shemya AFB remained in the Aleutians; it served a useful purpose on the great circle route to the Far East and continued to operate until July 1954. The Air Force resumed operations on Shemya in 1958 "to support various AF strategic intelligence collection activities." (Ref. 42, pgs 158,159)

While this period included a growing understanding of the Soviet threat, the focus was more on the Soviet threat in Europe and China. Military downsizing continued with Air Force personnel strength declining from 2,282,000 in 1945 to a low of 305,000 in 1947 and thereafter building to 411,000 in 1950. (Ref. 10, pg. 31) In Alaska military strength (all services) declined from a peak strength of 144,000 in 1943, to 19,000 by 1946. (Ref. 42, pg. 159)

The Strategic Air Command was created 21 March 1946 and its first unit, the 46<sup>th</sup> Reconnaissance Squadron (Very Long Range) Photographic was deployed to Alaska (Ladd) in June 1946. Eielson AFB was built during WWII as a satellite to Ladd, and was then known as Mile 26 airfield. Closed for a time, it was renamed Eielson AFB on 13 January 1948 and a major construction program was started to make it suitable for the Strategic Air Command. AAC acted as the host command and provided support for SAC. By December 1950, AAC strength was 16,909 including 2,725 civilians. (Ref. 42, pg. 160)

The Alaskan Command(ALCOM) was established 1 January 1947. ALCOM was the first unified military command. ALCOM consisted of AAC, Alaskan Sea Frontier, and Alaskan Department (known as U.S. Army Alaska after 10 November 1947).

Marks, during the period 1945-1950 served as a forward base where aircraft could be temporarily deployed. For Marks it was a period of re-evaluation because there was no clear mission for Marks. It was located outside a reasonable defense perimeter, and its remoteness made it costly to sustain operations. Eventually, it was determined that Marks was not needed for the Alaska Air Command mission and the base was put on a caretaker status in 1950.

The second period, 1950 to closure in 1956, was marked by growing realization of the world-wide Soviet threat and the importance of Alaska to the defense of the United States. There was great concern about the threat of a Soviet nuclear attack against the lower 48 states by an air attack

across the north polar region. The threat of Soviet attack across the north polar region necessitated an early warning system. Alaskan radar sites were to be developed primarily for the defense of Alaska, but they were also seen as a first step in a future Distant Early Warning line across the north polar region. Construction was begun on ten Aircraft Control and Warning (hereafter AC&W) stations. The three coastal AC&W stations west and north of Nome were part of an outer ring providing early warning. An inner ring provided Ground Control Intercept information to the Alaskan Air Command combat operations center. Interceptors were based at Ladd AFB and Elmendorf AFB for defense of the population centers at Fairbanks and Anchorage and defense of SAC's B-47s stationed at Eielson AFB. Eielson was under the direction of SAC but Eielson's defense and support were part of the AAC mission.

Construction of the new systems for early warning of Soviet attack was begun and Marks, now Nome Field, found a new mission to support construction and operation of the northwest coastal radar stations, and the Anvil Mountain radio relay station. A few years later, the Soviets had exploded an H-bomb and the AC&W system having proved itself, work began on the next level of technology, the Distant Early Warning Line stretching 3,000 miles across the northern limit of the continent. The DEW line could be no better than its communications system. White Alice was constructed to be the communication system for the DEW line and the AC&W stations. Nome Field developed another mission: to support construction of the DEW line and the White Alice. In addition, a new mission developed for the AFRS station to counter Radio Moscow.

Yet the new mission for Nome Field was a temporary necessity, closely related to level of construction activity and to the level of staffing at the AC&W sites. As construction phased down, the need diminished for Nome Field and it was closed in late 1956, never to reopen.

#### 4.0 Marks, 1945 to 1950.

At the close of World War II, Marks was chiefly an ATC airfield. It had 5050' and 4640' runways, three hangars, and housing for 4,000 men. Storage of over 3 million gallons of aviation gasoline was available. Facilities for limited fourth echelon repairs were maintained. Moonlight Springs served as an auxiliary airfield during the summer when Marks was weathered in. (Ref. 12, frames 333-334)

Figure 2 is a 1944 aerial view, representative of Marks during the 1945-50 time period. North and south runways are shown. Most of the buildings are a short distance south of the runways. The Snake River makes an "S" path through the base. The river flows eastward just south of the Birchwood hangar, heating plant, barracks, family quarters, guest house, and the BOQ. Then the river turns south for about a half mile and empties into Norton Sound through the jetty. Along this last section of the river are a long row of Cowin type warehouses (not shown in 1944 photo), power house, gymnasium, commissary, a few other buildings, and large oil and gasoline storage tanks (not shown in 1944 photo). Additional base facilities were located north of the east/west runway and east of the north/south runway. The base generated its own steam heat, electric power, and provided water and sewer service. The tundra stretches five miles to the north of both Nome and Marks AFB. To the north of the tundra is Anvil Mountain and more mountainous country. The Cowin warehouses and POL not shown in the 1944 photo, may be seen in the cover photo.

By November 1945, a postwar plan had been developed for four major bases: Shemya, Adak, Ladd, and Fort Richardson. Whereas wartime focus was on the Aleutians, emphasis in the postwar plan was on a balanced defense of all approaches to Alaska with forward bases available for rapid shift of short range units to areas of threat. Marks and Naknek were forward bases "to be occupied by airways detachments, including line personnel to care for the transient aircraft and service troops to perform necessary housekeeping duties to keep the bases in condition for possible future use by tactical forces." (Ref. 12, frame 353-355)

The 5030th Air Base Squadron was responsible for operation of the base, support of the several detachments stationed at Marks, and maintaining readiness for forward deployment of fighters. Supply was a special problem because of Marks forward position and isolation during winter months, warehouses kept a 300-day supply of non-perishable items and 60 days of perishable items. (Ref. 12, frame 461)

A B-29 from Fairbanks visited Marks on 24 February 1946 and apparently this was a very unusual event and brought every one on the base out to the runway. "As the wheels of the huge ship touched the runway a deafening roar resounded throughout the area. Not from the four great engines of the ship but from the multitude of camera shutters snapping simultaneously." The B-29 "drew great crowds of thrill seekers onto the ramp despite the wind, snow and cold." (Ref. 52, frame 1248)

The Arctic Indoctrination School was established in August 1947, as part of the 5030th Air Base Squadron, and may have become the most well known unit at Marks. The AIS is discussed in more detail in Section 4.1.

A handwritten note in the Eleventh Air Force Historical Office lists organizations from the station list of 31 August 1947. All of the handwriting couldn't be deciphered, but some of the units are:

10th Air Rescue Squadron Detachment, 53rd Airways Detachment, 64th Fighter Squadron, and Arctic Indoctrination School Detachment. (Ref. 35)

On 18 September 1947, the United States Army Air Force became the United States Air Force, a separate branch of the armed forces. Thereafter, Marks Field became Marks Air Force Base.

A 10th Air Rescue Squadron OA-10 is shown in a photo at Marks in June 1948. (Ref. 42, pg. 200) The 10th Air Rescue was activated 1 April 1946 as a consolidation of previous rescue activities. It was transferred from AAC to the Air Rescue Service on 1 July 1950. Detachments were maintained at Elmendorf, Ladd, and Adak Naval Station (Ref. 42, pg. 195-206) with deployments to Marks. Marks may have had a detachment in 1947 but the OA-10 shown in the 1948 photo probably was visiting or on deployment.

Consistent with its mission to be a forward base, fighter aircraft were not permanently stationed at Marks during the 1945-50 period but were at times assigned to Marks on temporary forward deployments. Typically the deployments were short but sometimes were for substantial periods. For example, P-51s were stationed at Marks from 5 November 1947 to 17 March 1948. (Ref. 13, pg. 69)

"On 2 September (1948) a flight of six F51Hs of the 64th Squadron were sent on a VFR Navigational Training Mission to Marks AFB, Nome, and return. The flight was to be made in elements of two planes with one inexperienced man flying as wing man to the element leader. Fishtail Red Flight became lost in bad weather and crashed. Both planes were damaged but the pilots escaped." (ref.13, pg. 73)

A 25 September 1948 photo shows a total compliment of 445 service men and women in the 5030th and detachments. In addition, there were an unknown number of civilian employees (probably in excess of the 17 civilian employees documented in 1953). The photo is a moment in time and may not be representative of the whole span from 1945 to 1950. Units shown in the photo are the 5030th Air Base Squadron, 157th AACS detachment, and 625th AC&W detachment.

Commanding officers of Marks during the 1945-50 period were:

Col. James H. Potter	arrived circa September 1945
Col. Bodle	commanded in 1947 and perhaps 1946
Col. Harry N. Burkhalter, Jr.	arrived in 1948, departed summer 1949
L/Col. Donald C. Jameson	arrived in summer(July?) 1949, departed November 1950

Scheduled airlines were co-located on the base including Pan Am, Wein, and Alaska Airlines and operated with no conflicts with the military use.

Marks was considered by the Air Force to be foreign service. Officers and NCOs were allowed to bring dependents to Marks and if they did, the tour of duty was two years. Airmen were not allowed dependents and served a one-year tour of duty. Family housing was available on the base but because it was limited, families were often housed in Nome until base housing became available. Children from the base housing attended school in Nome. The base provided hourly free bus service to Nome from early morning to late evening. There was significant opportunity for base personnel to get involved in community activities such as schools, service clubs, and boy scouts.

Certainly the Alaskan Air Command must have been asking several questions during this time period, such as:

- What is the mission of Marks and how does it fit into the mission of the Alaskan Air Command? The stated mission of Marks was to serve as a base for temporary forward deployment of fighters. It appears to the author that an unstated corollary mission was to establish and maintain a military presence on the west coast of Alaska. Given the infrequent forward deployment of fighters, this mission was not clear to those who were stationed at Marks. Some who were stationed at Marks during this period have described the mission as the support of the Arctic Indoctrination School. Others stationed at Marks describe the mission as support of aircraft from Ladd and Elmendorf that were patrolling the area between Alaska and the Soviet Union and support of temporary radar sites. The various opinions may illustrate how poorly defined the mission was at Marks. Marks seemed to be a base searching for a mission.
- Given the radical downsizing of the armed services, the poorly defined mission for Marks, its vulnerable location close to the Soviet Union, the high cost of operating in northwestern Alaska, and the lack of permanent property rights, the Alaskan Air Command was asking itself whether it should retain a presence at Nome.

The base was located on leased land, under a permit from the CAA. Preventive maintenance and reinvestment were needed but perhaps because there was not a clearly defined mission for the base and it was located on land not owned by the Air Force, there was little incentive for the preventive maintenance and reinvestment needed to protect the facilities. Buildings, although recently constructed (mostly in 1943-45), were deteriorating rapidly in the permafrost and severe climate of the Seward Peninsula.

General of the Armies Dwight D. Eisenhower visited Alaska in August 1947 for the purpose of assessing Alaskan defenses. By this time it was understood that despite victory in World War II, there was a new military threat from the Soviet Union. General Eisenhower visited most major military installations in Alaska, including Marks Field. Following General Eisenhower's visit, a major reassessment and rebuilding of Alaskan Air Command facilities was undertaken. In 1947, a concept evolved (the Crumly plan, see Section 5.1) that Alaskan military assets should be concentrated in defensive perimeters that had an adequate warning time, because of greater distance from the Soviet Union - i.e. Anchorage and Fairbanks. Marks Air Force Base was on the front line of the new Cold War with the Soviet Union and Marks was deemed too close to the Soviet threat to be defensible. Isolated military installations in western Alaska and the Aleutians were greatly reduced in strength or abandoned, and forces were concentrated at three air bases near Anchorage and Fairbanks. (Ref. 1- pg 174,175)

The Moonlight Springs satellite field was declared surplus on 16 May 1949 and disposed of. (Ref. 53, frame 703)

A study of the feasibility of inactivating Marks was completed in September 1949. The cost of operation and the problems of real property and leases had caused AAC to examine the possibility of reducing or inactivating Marks. Only the AC&W detachment was to remain. The Arctic Indoctrination School was to be transferred to Ladd AFB so that instruction of personnel in Arctic survival would continue. Remaining property and facilities would be transferred to other governmental agencies. (Ref. 53, frame 664)

Paradoxically, while AAC considered Marks to be not needed and planned its closure, Congress appropriated funds in 1949 for the Corps of Engineers to build the Nome sea wall and one of the sea wall justifications was the need to protect the military base. The sea wall was completed in 1951.

The last edition of the Marks AFB newspaper "Scratch Marks", dated 16 September 1950, is in the files at the Eleventh Air Force Historical Office. The headlines recognized that this was to be "The last edition of Scratch Marks" and the Commanding Officer, L/C Donald C. Jamison, expressed his appreciation to all personnel for the efforts made in the inactivation of the base.

Marks was reduced to caretaker status on 1 November 1950. (Ref. 54, pg. 11) The Eleventh Air Force Historical Office has some notes, some handwritten and some typed, bearing a classification stamp dated 10 November 1950, which appear to have been made to summarize the status upon the base closure. (Ref. 35)

- Housing was for 250 airmen and 25 officers with emergency capacity for 400/50.
- The east/west runway was 5550' x 280' and the north/south runway was 6000' x 280'. [There are a variety of different numbers in the references on the length and width of runways. The most credible may be the information that was furnished to pilots; in 1951 pilots were advised that the east/west runway is 6001'x150' and the north/south runway is 5576'x150'.]
- The guest house was transferred to the CAA.

It is doubtful that the base was ever actually closed, it was described in some documents as "reduced to caretaker status". No references have been found that describe very precisely what "closed" and "caretaker status" mean or the staffing of men and equipment and the mission during "caretaker" status. Some references suggest that the AC&W detachment remained, that many civilian employees were retained, and that the base hosted the deployment of a Navy VC-61 Squadron during the summers. The question of what constituted caretaker status may be irrelevant because it appears that soon Marks found a new mission and was reborn as Nome Field as described in Section 5.0.

A number of personal recollections during the 1945-1950 time frame are included in Appendix C: Sam Gardner (1948-49), Ralph Graves (1948-49), Harry T. Litts (1947-49), Donald Sheriff (1948-49), and Art Sleierpin (1949-1951).

#### 4.1 Arctic Indoctrination School

For three years (1947-1950), the Arctic Indoctrination School was probably the best known activity at Marks AFB.

War time ferrying of planes to the Soviet Union brought out the need for training in Arctic survival. "During the war years the rescue of crashed pilots was a hit-or-miss proposition at best. Inadequate rescue facilities, lack of clothing suitable for living in Arctic wastes, and no knowledge of know-how, led to many deaths that might have been averted had conditions been different." However, when the war ended, large scale flying operations in Alaska ceased, and so did the immediate need for formal survival training. (Ref. 56, frame 930)

The Arctic Indoctrination School owes its origins to the 46th Reconnaissance Squadron (Very Long Range) Photographic which was created shortly after the formation of the Strategic Air Command (21 March, 1946). The 46th became SAC's first operational unit, and its mission of

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polar mapping and navigation was SAC's highest initial priority. The 46th arrived at Ladd Field on 21 June 1946. The first aircraft arrived around 21 July 1946 and began making orientation flights around Alaska shortly thereafter. (Ref. 11, pgs 17-23)

There was no survival training for air crews when the 46th arrived in Alaska. Captain Harold Strong, an officer of Eskimo extraction, was assigned from Wright Field, Ohio to the 46th and directed to set up survival training for the squadron. Survival training was carried out during the winter of 1946-47 in the vicinity of Ladd Field and at Blair Lake, about sixty miles from Ladd Field. (Ref. 11, pg. 15 and 60, 61)

The Kee Bird, an F-13 of the 46th Reconnaissance Squadron, was overdue on 21 February 1947. An extensive search found the Kee Bird about 200 miles north of the weather station at Thule, Greenland. The crew was successfully rescued after three days. Amazingly, no lives were lost. The crash of the Kee Bird was to be the trigger for establishment of the Arctic Indoctrination School at Marks. (Ref. 11, pg. 89-111)

Captain Strong, in March 1947, began the initial work for the activation of a school to apply the Arctic survival methods which had been developed for the air crews of the 46th squadron to the air crews of the entire Air Force. "The need for an Arctic Indoctrination School was recognized by the USAF and Alaskan Air Command in April 1947. The mission is to: (1) train aircrews and other selected personnel in Arctic Survival under emergency conditions, and (2) test and develop personal rescue and survival equipment." (Ref. 55, frame 917)

"After careful studies, Nome was chosen because it offered the ideal combinations of temperature and wind conditions. The Nome area offered the conditions as near to those desirable as anywhere in Alaska. The terrain was suitable for schooling in barren tundra survival and the proximity of the sea provided for sea-ice survival training techniques. These factors were adjudged as being the most important in survival training. Bush survival was not included in the curriculum because it was felt that with the bountiful game and shelter provided by nature in the Alaskan wooded sections, survival shouldn't provide any harrowing problems. Sea-ice survival, on the other hand, was considered to produce the worst conditions possible because of the total lack of natural resources. A man forced down on sea-ice was definitely on his own until rescued. Everything he accomplished had to be done with what he could salvage from his aircraft." (Ref. 56, frame 929) "Tundra survival, though, provided many natural aids to the downed flier provided he knew what to look for and how to make use of what he found." With these factors in mind, a course of instruction was developed that would emphasize both sea-ice and barren tundra survival, with only incidental instruction on bush survival. (Ref. 56, frame 939)

The Arctic Indoctrination School was established at Marks, as part of the 5030th Air Base Squadron, on 15 August 1947. Captain Harold Strong, who first set up Arctic survival training for the 46th, became the first commanding officer of the Arctic Indoctrination School and dean of a faculty consisted of six officers and 43 airmen. While classrooms and student barracks were near the flight line, the AIS also maintained it's own dog teams in the Penny River area for emergency use in rescue work or the transporting of sick or injured students. (Ref. 13, pg. 59 and Ref. 56, frame 959)

The first class began on 1 December 1947. (Ref. 12) Each class of 60 was at the school for one week. There were 400 graduates in the first year. While the education of air crews, not ground personnel, was the primary mission of the school, ground personnel stationed at Marks were



allowed to take training. Space was also reserved for personnel of other services including Navy, Marines, Coast Guard, and Army. (Ref. 56, frame 938)

The AIS gained considerable fame and was featured in many news and magazine articles. These articles helped create the impression that the mission of Marks was to support AIS. An article in Los Angeles Daily News of 26 February 1949 featured the school and noted "The school is the prime function today at Marks AFB at Nome, where less than 500 civilians and Air Force men make a pretense of maintaining a strategic outpost." (Ref. 35, clipping)

The reputation of AIS grew quickly and in 1949 class size was increased to 75 students to meet the training needs of SAC and USCG. (Ref. 53, frame 679)

Morale problems were noted in the AIS history. The men "are subjected to the extreme climate of the Nome area all during the winter and during the summer they are on the Marks duty roster and are required to assist in the unloading of ships, and perform many duties about the base and have little time for recreation or for preparation of their equipment for the coming school year." (Ref. 56, frame 934)

While the need for Arctic survival training was ongoing, Marks was planned to be placed on caretaker status in November 1950. Hence, after its founding and three years at Marks, the Arctic Indoctrination School was moved to Ladd AFB so that instruction of personnel in Arctic survival would continue. This movement took place following the close of the school year, 22 April, 1950. (Ref. 54, pg. 11)

#### 4.2 Crash of the Forlorn Turkey

The full story of the crash and rescue attempts are described in Appendix B which has been reprinted from the World in Peril, The Origin, Mission & Scientific Findings of the 46th/72nd Reconnaissance Squadron. (Ref. 11) It is a tragic story of folly and courage that is worthy of a Hollywood movie.

The 46th Reconnaissance Squadron (Very Long Range) Photographic was SAC's first operational unit and highest priority. The 46th arrived at Ladd on 21 June 1946. Its B-29s (redesignated F-13s) were stripped and specially modified for short take offs, cold weather operations, and the long range needed to carry out special reconnaissance missions. (Ref. 11, pgs. 17-23)

The "Forlorn Turkey" became overdue while returning from a classified mission into Soviet airspace on 23 December 1947. The Air Force conducted a major search and rescue operation out of Marks. After the crash site was located on the east slope of Hot Springs Mountain, 65 miles east of Shismareff and 120 miles north of Nome, successive rescue efforts were frustrated by mishaps and severe weather. The rescue was finally effected on 28 December by Nome bush pilots Bill Munz and Frank Whaley assisted by Nome residents Dr. M.R. Kennedy and Bud Richter (photographer). Six of the eight crew members were rescued. Two others survived the crash with minor injuries but died subsequently while trying to walk to Shismareff. Three Air Force paramedics and another airman died in unsuccessful rescue attempts.

In retrospect, it seems ironic that the crash occurred so close to the home of the Arctic Indoctrination School yet provided many examples of what not to do after a crash in the Arctic.

## 5.0 Nome Field 1951 to 1956.

In response to the growing Soviet threat, defense assets had been concentrated near Fairbanks and Anchorage. Also, Marks was deemed to close to the Soviet Union to serve as a base where fighter aircraft could be temporarily deployed forward of the main bases. Consequently, in November 1950 Marks AFB was closed and put on caretaker status. As explained in Section 4.0, it is not clear whether the base was actually closed or what caretaker status meant or how long it lasted.

Galena, 254 miles closer to Ladd, replaced Marks as the forward operating base for deployment of fighter aircraft. "Galena became a forward operating base on 30 March 1951, when four F-94s arrived from the 449<sup>th</sup> Fighter Interceptor Squadron. Prior to that, the squadron had used Marks AFB at Nome, which was closed in late 1950." (Ref. 42, pg. 191)

Concurrently with the phase out of Marks and the focus on concentration of Alaskan defense assets near Fairbanks and Anchorage, other studies were recognizing the need for early warning of Soviet attack. A plan was developed in mid-1949 for the development of ten radar sites and two air defense control centers for the protection of Alaska. Site selection began immediately, construction bids for some sites were opened in the Spring of 1950, construction work barely began but was suspended before the freeze up in the Fall of 1950; construction began on a large scale in the Spring of 1951.

The three radar sites on the northwest coast were distant from Anchorage and Fairbanks and experienced severe weather conditions. A forward location was needed to support radar station construction. Hence, almost concurrent with the closure of Marks, and the deactivation of the 5030th Air Base Squadron, a new need developed that would become the mission for the next five years until closure in 1956. The recently closed Marks was reborn almost immediately as Nome Field. In addition to the name change, there was an important organizational change. Marks had been what might called a stand-alone base, that is it reported directly to the Alaska Air Command Northern Sector in the same manner as Ladd. However, after being reborn as Nome Field, its status was diminished and it became a subsidiary base of Ladd.

The name Marks AFB apparently persisted for a short while under the new mission. Renaming Marks AFB to Nome Field did not happen until late 1951 or early 1952.

Since Nome Field played a supporting role during the 1951-56 period, the history of Nome Field during this period is essentially the history of the activities it supported: northwest coastal AC&W construction, a role that by 1953 had evolved to support of the completed AC&W installations; support of the Anvil Mountain Radio Relay; support of the Armed Forces Radio Service (AFRS); support of the 3rd Radio Squadron Mobile detachment; support of the Army Security Agency detachment; support of the Navy Photo Reconnaissance Squadron detachment; and, beginning in 1955, support of DEW line and White Alice construction. These activities are described in separate subsections.

The differences between Marks AFB and Nome Field were much greater than a name change. Though located at the same site, Nome Field was a very different place than Marks AFB. Comparing Nome Field in 1955-56 to Marks of 1947-48, the following differences are observed.

## History of Military Airfield at Nome, Alaska

- A common thread through the activities supported by Nome Field after 1951 was that all the activities were directly or indirectly engaged in forms of intelligence gathering whereas there had been much less of such type of activity at Marks prior to 1951.
- The number of military personnel stationed at Nome Field, depending upon the detachments at Nome Field and the level of support activity required, was one-fourth to three-fourths the number at Marks.
- By 1955-56, buildings had deteriorated and the base was in a depressing condition. Also, many buildings were vacant and many had changed use. For example the Marks mess hall was closed and the 1955-56 mess hall was in what had been the BOQ and Officers Club at Marks, and later was relocated to a new mess hall in the Birchwood hangar.
- Marks had a commissary, post exchange, snack bar, special services, barber shop, basketball court, bowling alley, officer's club, and bus service to Nome. Nome Field in 1955-56 had none of these amenities. The lack of transportation meant that the 1955-56 base was relatively isolated; although only about a mile from town, airmen stationed at Nome Field infrequently went into Nome.
- Dependents of officers and non-commissioned officers were allowed at Marks and the tour of duty with dependents was two years, or one year without dependents. Dependents were not allowed in 1955-56 and the tour of duty was one year.
- Service women were stationed at Marks but Nome Field was considered too remote for the assignment of service women.
- Marks had two aircraft stationed at the base and others stationed temporarily on deployment. No aircraft were stationed at Nome Field but Nome Field had many transient aircraft serving the new radar sites and White Alice and probably had significantly more air traffic than Marks.
- At Marks, Air Force engineers cleared snow from the runways. At Nome Field the CAA had the primary responsibility in 55-56. The Air Force cleared the aprons around the hangar and helped CAA if they asked.
- Photos from 1947-48 show regular Air Force (or Army) uniforms were worn. In 1955-56 summer khakis were worn year around at Nome Field (and the radar sites) because there were no dry cleaning facilities. Also, winter outerwear and footwear appeared to be much improved by 1955-56.
- The building which served as the quarters for the Marks commander and guest house (understood to be an alternative site for the Yalta conference) was taken over by the CAA.
- By 1956, security had ceased to be a consideration and the base was wide open with no security measures.

The 5001st Air Base Group at Ladd was responsible for Nome Field and accomplished this responsibility in 1951 through its Flight A stationed at Nome Field. By early 1953 activity at Nome Field had increased, Flight A strength had been increased to where it warranted a squadron designation, and the 5003rd Air Base Squadron was created to operate Nome Field for the 5001st Air Base Group.

Squadron (base) commander in 1952-53 was Major George Tanner. Immediate predecessors and successors to Major Tanner are unknown. The squadron commander from circa May 1955 to May 1956 was Major James D. Kell. Beginning 18 July 1955 and continuing to the closure of Nome Field, the 5003rd operated both Nome Field and Galena, 254 miles inland. Squadron headquarters were at Nome Field until Major Kell departed circa May 1956. Major Kell was succeeded by Major Robert J. Cahill, the squadron headquarters were moved to Galena, and Nome Field became

a detachment of the 5003rd with 1/Lt James W. Williams serving as Nome Field detachment commander.

Marks/Nome Field was the site of an AC&W detachment until 1953. Radar at Marks/Nome Field may date back to World War II but no documentation has been found prior to 1947 other than a 1949 report that mentions abandoned World War II Air Warning Service buildings at two sites near Cape Rodney, one twenty-one miles from Nome at elevation 1200 feet and another eighteen miles at 1400 feet. The Marks/Nome Field radar detachment, equipped with World War II vintage AN/TPS-1B radar, was located several hundred feet southeast of the Birchwood hangar. Prior to 1950, Marks AFB radar was the only radar in northwest Alaska whose purpose was to monitor aircraft. Another radar unit was located at Gambell but its purpose was to monitor Soviet shipping during the ice-free shipping season. The radar detachment at Nome Field was closed in 1953 when it was no longer needed because of the start up of the three new AC&W sites. (Ref. 45, pg. 8-50; Ref.48, encl. 2, pg. 5)

A photo of Marks AFB personnel taken on 25 September 1948 shows a detachment of the 625th AC&W squadron consisting of fourteen men. A 1949 report shows a detachment of 2 officers and 44 airmen. (Ref. 50) By June 1951, the radar site at Nome Field had become Detachment A-1 of the 142nd AC&W Squadron. Typical staffing in the 1951-52 era was four officers and fifty airmen. The commander of Det. A-1 at Nome Field from July 1951 to June 1952 was Capt. Richard T. Moore. On 10 July 1952, the detachment commander is noted as Capt. Ralph F. Ives. (Ref. 45, pg. 5-22)

Joel B. Krausse has recently written a history of the 160th Aircraft Control and Warning Group. (Ref. 45) The 142nd was one of four AC&W squadrons of the 160th AC&W group, composed of Air National Guard units from Oregon and Washington, activated for Federal service on 1 May 1951. The 142nd, with headquarters at Ladd AFB, operated radar sites at Nome (Detachment A-1), Gambell (Detachment A-4), and Kotzebue (Detachment A-5). Krausse was at Nome Field (Detachment A-1) along with some 30 of his airmen about the last week of June 1951 while waiting for the Navy to take them to Cape Lisburne, where the new AC&W station was under construction. Krausse mentions that in 1951-52 the Corps of Engineers District Engineer for AC&W construction was located at Nome and used the Detachment A-1 HF radio to communicate with his Resident Engineers from Cape Lisburne(north) to Cape Romanzoff(south). The recollections of Joel B. Krausse relative to Nome Field, taken from his history of the 160th AC&W Group, are included in Appendix C.

An AACS detachment at Nome Field provided aircraft control until 1 March 1952 when duties of flight following were assumed by the Movement and Identification Section of the Air Defense Control Center (part of the new AC&W system then under construction). (Ref. 45, pg. 5-30) The AACS unit at Nome Field has been identified as a detachment of the 1930th AACS Squadron (from a Ladd AFB phone directory, dated 12 March 1952, furnished by Joel. B. Krausse). The 1930th AACS detachment apparently replaced a detachment of the 157th AACS Squadron which was stationed at Marks prior to its closure in late 1950.

The runways, while paved, were generally in poor condition because of frost heave. In 1952, extensive damage was noted due to heavy ice heaving and frost boils, completely closing the north-south runway. (Ref. 16, pg. 120) In 1955-56, frost heave on the east-west runway was so severe that I can recall following another jeep down the runway at a distance of perhaps several hundred

feet and the jeep would repeatedly disappear as it went into the trough between frost heaves and then reappear again as it crested the next frost heave.

Attack by the Soviets was a concern. The base was quite defenseless and so far forward that AAC intended no effort to come to the aid of the Nome garrison in the event of a Soviet attack. The plan was to demolish base buildings and evacuate using the old mining railroad which runs 80 miles into the interior of the Seward Peninsula. The Air Force had a gasoline powered locomotive and frequent trips were made to the evacuation site at Salmon Lake. (Ref. 17, pg. 175) It is unclear what was to be accomplished by an evacuation, given that food and shelter were limited, the evacuation site is open tundra with no shelter from air attack, and no relief was planned by the AAC.

Nome Field provided an excellent platform to support the three northwestern coastal radar sites. In 1954 an example was developed showing the efficiency of operating out of Nome Field compared to Ladd. In the example month 2,267 C-47 hours from Nome Field were needed to support the three radar stations but to operate from Ladd, using Galena for refueling, 11,310 C-47 hours would have been needed. (Ref. 61, frames 969, 970) The greater number of hours from Ladd resulted from the combination of longer flying time and lighter pay load because of greater fuel load. The average C-47 payload to an outer site (from Ladd) was estimated at 3,342# (much less than from Nome because of the need for additional fuel). (Ref. 61, frame 1068)

Supplies were delivered to Nome Field primarily by air, except for POL deliveries by sea during the summer navigation season. (Ref. 45, pg. 5-11) Typically, supplies were delivered to Nome Field in large aircraft, such as the C-119 and C-124, and were delivered to the sites in C-47s. Deliveries from Nome Field to the sites were variable depending upon the weather and needs at the sites. Nome Field also served as a hub for supplies delivered to Nome Field by air for transport to the sites by sea during the summer shipping season. The same advantages that made Nome Field a supply hub also made it a hub for the movement of personnel to and from the sites.

During 1952, when the radar sites were under construction, typical ranges of cargo handled are probably represented by April 1952, 41,000 pounds; May 1952, 130,000 pounds; June 1952, 166,000 pounds. (Ref. 45, pg. 5-76) At the end of May 1952, 12,072 pounds of supplies were waiting to be transported by air and 650,618 pounds were waiting to be transported by water. (Ref. 45, pg. 8-24) The support need increased as construction was completed and the sites became operational in 1953. A 1954 report lists cargo and passengers for a three month period (Ref. 21, pg. 114).

	July	August	September
Pounds of cargo	365,358	460,725	414,823
Passengers	560	675	212

By early 1953, crashes had become a problem at the AC&W sites because of poor weather, marginal airfields at the sites, and pilots inexperienced in these difficult conditions. Because of crashes at the AC&W sites, a rated operations officer was assigned to the 5003rd Air Base Squadron, as a representative of Ladd AFB Base Operations, to brief crews, assist in flight planning, and supervise cargo and passenger loading on all flights departing Nome. (Ref. 58, frame 398)

On 31 March 1953, in anticipation of the radar sites becoming operational, the defense of the sector north of the Alaska Range was reorganized. The 11th Air Division (Defense),

headquartered at Ladd, was activated and the Commander 11th AD was assigned command of all personnel north of the Alaska Range, except Eielson AFB. Activation placed all AC&W Squadrons, the 449th Fighter Interceptor Squadron, the 5064th Cold Weather Material Testing Squadron, and the Arctic Aeromedical Laboratory on the same level reporting directly to the Commanding General of the Division. The function and administration of the Ladd AFB (and hence Nome Field) was "invested in the newly activated 5001st Air Base Wing." (Ref. 58, frames 371-374) The 720th Fighter Bomber Squadron (F86 Sabre Jet) was also part of 11th Air Division but was positioned at Eielson. (Ref. 61, frame 1002)

The authorized strength of the 5003rd Air Base Squadron on 31 May 1953 was 5 officers and 86 airmen. (Ref. 58, frame 513) In addition, there were the various detached units at Nome Field, which probably numbered several hundred, and seventeen assigned civilians. (Ref. 60, frame 846)

On 31 December 1953, a C-47 crashed on take off at Nome Field; two of four crew members were killed and two were critically injured. (Ref. 39, frame 700)

In late 1954, the 5001st Air Base Wing was redesignated the 5001st Air Defense Group, the 449th FIS was transitioned from F94s to F89s, and two fighter squadrons were added to the 5001st: the 433rd FIS (Northrup F89C Scorpion), and the 18th FIS (F89D). Authorized strength of the 5001st on 31 December 1954 was 659 officers, 5093 airmen, and 1066 civilians. (Ref. 61, frames 939, 955)

On 1 October 1955, the 18th, 433rd, and 449th FIS were reassigned from the 5001st Air Defense Group to 11th Air Division (Defense). The 5001st ADG was redesignated the 5001st Air Base Group (i.e. Nome Field became part of the 5001st ABG). (Ref. 63, frame 1280)

The 5003rd Air Base Squadron, headquartered at Nome Field, became responsible for operating Galena in July 1955. "Detachment 2 5001st ADG was discontinued at Galena, Alaska on 18 July 1955; and Detachment 1 of 5003rd Air Base Squadron was organized at Galena on 18 July 1955 with an authorized strength one officer and 43 airmen." (Ref. 63, frames 1421, 1423)

On 22 June 1955 a Navy Neptune from Kodiak Naval Air Station was attacked by two Soviet MIGs over international waters off St. Lawrence Island. The Neptune crash landed on St. Lawrence Island four miles south of Gambell with no loss of life. (Ref. 22, pg. 236) While the location of Nome Field close to Gambell might have suggested the temporary positioning of fighters at Nome Field in response to the Soviet attack, this was not done and this inaction apparently confirmed that Nome Field was no longer to be used for this purpose. The 720th FBS, stationed at Eielson AFB, dispatched four F86s on alert status at Galena on 29 February 1955. They remained at Galena as the frontline response to the crisis. (Ref. 62, frame 1213) In August 1955, the 720th FBS was redesignated the 455th FBS and reassigned to the continental U.S. (Ref. 63, frame 1280)

AAC Logistics Plan 2-55, of 15 March 1955, directed the phase-out of Nome Field as a refueling stop for military aircraft and primary base of operation for supplying outlying stations, with the ultimate objective being complete withdrawal of all Air Force personnel by 1 October 1955. The operation was started in July 1955. However, AAC soon issued a hold order and Nome Field was retained to support the White Alice Project for an indefinite period of time. (Ref. 63, frame 1354) By the summer of 1956, the White Alice subcontractor for Western Electric was making 30 flights daily out of Nome Field, weather permitting.

On 31 December 1955, with the phase out having begun but placed on hold, the unit strength of the 5003rd was: officers, 6 authorized, 3 assigned; airmen, 107 authorized, 76 assigned; civilians, 2 authorized, 17 assigned. (Ref. 63, frame 1283) In addition, detached units numbered about 15.

On 27 January 1956, during severe winter weather conditions, an Alaska National Guard L-20 Beaver carrying four persons was overdue on a flight from Shishmaref to Nome. The L-20, on a National Guard inspection trip, carried Brigadier General John R. Noyes, commander of the Alaska National Guard; Major Siegwart, commander of the Nome National Guard unit; Major Kolb, the pilot; and Sergeant August, the mechanic. A massive search was organized out of Nome Field, but whiteout conditions hampered search efforts and the crash site was not located until the fourth day. The L-20 had crashed into a ridge about twenty miles north of Nome. General Noyes was pinned in the wreckage and believed to be dead. The others were severely injured. The crash site was discovered by flying missionary Donald Bruckner and his observer, Jim Walsh near Engstrom's Camp on Basin Creek. "The search had been one of the largest ever organized in the Arctic. The Air National Guard sent a C-47 from Anchorage, while the 71st and 74th Search and Rescue Squadrons from Elmendorf and Ladd sent C-54s. Wien Alaska Airline pilots, the Civil Air Patrol and local bush pilots flew many volunteer hours searching for Alaska's Adjutant General. Bush pilots Martin Olson, Philip Lancaster and veteran pilot Bob Munz landed on the flat mountain top and brought the injured men into Nome. General Noyes had survived the crash and the (four day) wait only to die in the Nome hospital a few hours after being rescued." Ironically, in clear weather the crash site was visible from the Anvil Mountain Radio Relay station, and conversely the large Anvil Mountain antennas were clearly visible from the crash site. (Ref. 68, pg.93,94)

On 3 April 1956, a fire totally destroyed the Anvil Mountain Radio Relay site. The Alaskan Air Command described the fire as "disastrous." Voice communication between the Combat Operations Center and three outermost AC&W sites was lost. Restoring the Anvil Mountain Radio Relay became the highest priority in the Alaskan Air Command. The radio relay airmen and technicians were relocated to Nome Field. Temporary measures by the radio relay airmen restored partial service, out of Nome Field, in twenty-four hours. Nome Field was tasked with restoring the Anvil Mountain site as soon-as-possible so that replacement electronic equipment could then be installed by the radio relay airmen and technicians. However, Anvil Mountain was still relatively inaccessible because of deep snow. Therefore two large sled mounted wanigans (sled mounted shack) were proposed to be constructed at Nome Field, one for generators, and one for electronic equipment and an operations shack. After construction by Nome Field, the sleds would be outfitted with electronic equipment by radio relay airmen and technicians and towed by crawler tractors to the Anvil Mountain site. The sleds and wanigans were designed in a few hours, entirely by feel and experience without support of calculations, based on radio relay needs and local experience in sleds and wanigans as used for mining operations, and a materials list was prepared. Materials for the sleds were not available locally and became a priority supply issue for the Alaskan Air Command. Supplies were airlifted to Nome Field within twenty-four hours and work began immediately. The sleds and wanigans were completed, equipment installed, sleds moved to the Anvil Mountain site and full service restored in three weeks.

The History of the Alaskan Air Command shows that the status of Nome Field was a subject of continuing evaluation during the 1951-56 time period with opinions on the necessity of Nome Field varying swiftly from positive to negative on a regular basis. Finally, in late 1956 the issue was resolved in favor of closure. Operations Plan 6-56, of 27 November 1956, ordered the use of

Nome Field by the Air Force for resupply of outlying sites to cease on 15 December 1956 and the withdrawal of all personnel by the same date. (Ref. 65, frame 1711) The Armed Forces Radio Service and certain functions in support of the Anvil Mountain radio relay continued to operate in the City of Nome. (Ref. 65, frame 1633) Closure is discussed in further detail in Section 6.0.

A number of personal recollections during the 1945-1950 time frame are included in Appendix C: Ed Darrow (1950-51), Joel B. Krausse (1951), Paul D. Heckh (1951-53), David J. Aul (1952-53), George Tanner (1952-53), William H. Greenhalgh Jr. (1953-1957), and Jim Williams (1955-56).

## 5.1 Aircraft Control and Warning Sites

At about the same time the need for Nome Field as a base for temporary forward deployment of fighters was determined to be no longer necessary, a new need developed for Nome Field to support proposed northwest coastal early warning AC&W sites, and later White Alice and the DEW line. Because of the remoteness, small airstrips, poor communications, and difficult weather conditions at the AC&W sites, a nearby staging area was needed for materials, equipment and manpower. By 1950 this new need was apparent and by 1951 it became the principal justification for operation of Nome Field.

At the conclusion of World War II, Alaska had thirteen radar installations in the Aleutians, from Adak to Attu, but the equipment was rapidly becoming obsolete. Beginning in 1946, plans for an early warning system were proposed. Sometimes there were two plans being developed concurrently, one by the Alaskan Air Command and the other by the Army chief of staff: the AAC planing focus was the defense of Alaska while the War Department planing focus was on continental defense. Plans were adopted but quickly superseded by contradictory plans. Looking back from fifty years of hindsight, it all seems very confusing but the vacillation is explainable if it is understood that basic concepts had not been developed yet. The main differences in plans related to whether emphasis should be placed on an inner ring or an outer ring and how many radar sites there should be; these differences were influenced by military economy and by evolution of radars, communications, fighters, and tactics.

In 1946, both the Hoge Report (Chief of Staff, U.S. Army and Chief of Naval Operations) and the plan developed by the Alaskan Air Command included a radar site at Nome. In 1947 site visitations were made to potential radar sites and the existing system inventoried by a team, headed by Lt. Col. H.J. Crumly, which was dispatched on orders from the War Department. At that time Alaskan Air Command radar capability consisted of an AN/CPS-5 at Ladd and an AN/TPS-1B at Nome; two AN/CPS-5s were being installed at Adak and Fort Richardson. (Ref. 44 pg. 12). By the time of the Crumly plan, Nome was no longer listed as a proposed forward fighter base and the Crumly Minimum Air Defense Plan recommended a focus on radar protection for the Alaskan interior in the immediate vicinity of the fighter bases at Ladd and Fort Richardson (Elmendorf) and recommended coastal early warning be deferred based on economy and need; the Crumly plan did not include a radar site at Nome. (Ref. 44, pgs. 17-21)

The numerous previous plans were inconsistent and divergent and despite all the planning, there were only six radars in place in all of Alaska by 1949: Elmendorf, Clear, Nome, Naknek, Galena, and Gambell. Nome and Gambell were the only radars in western Alaska and both were regarded as interim sites. Both were light weight type radar (AN/TPS-1B) with no height finder and no spare. Nome operated only during "normal working hours" and Gambell operated only during the summer shipping season primarily to survey Soviet shipping in the Bering Sea. (Ref. 44, pg. 27)



The need for a definitive plan upon which implementation could be based was resolved by the Alaskan Air Command in mid-1949 with a new plan, known as the "Modified Plan". The "Modified Plan", called for a smaller number of radar sites inside U. S. boundaries for a modicum of warning. It called for 10 radar sites for Alaska and two control centers. (Ref. 42, pgs.160-171) It had the benefit of the Hoge Report, the Crumly Report, the AAC 1947 plan, AAC 1948 plan, and physical site investigations. (Ref. 44, pg. 27) Ten sites were selected for the permanent AC&W system and accorded first priority status. The permanent AC&W system included five coastal early warning sites: Cape Lisburne, Cape Newenham, Cape Romanzof, Tin City(also known as Wales but located closer to Tin City), and (site not yet determined) St. Lawrence Island; three interior intermediate ground-controlled intercept sites: Campion, Tatalina, and King Salmon; and master ground-controlled intercept sites: Murphy Dome and Fire Island. Two more, Indian Mountain and Sparrevohn were added in 1951 to cover radar gaps between the other interior radar sites. Nome was selected for a site among the twenty listed radar sites in the third priority (which was never implemented). Point Spencer had been on previous lists but was replaced by other sites in the 1949 plan. (Ref. 44, pg. 29)

The five coastal sites were to be early warning sites equipped with search radars which provided distance and heading information (but not height) on unknown aircraft. The interior sites in the vicinity of Ladd and Elmendorf were to be ground-controlled intercept sites. In addition to being equipped with search radars, they were to be equipped with height-finding radars. Using both radars, the ground-controlled intercept site radar operator could direct the fighter interceptor pilots until they could either acquire their target visually or locate them with their onboard radar. Until 1965, the information was relayed by voice to the ADCCs, where it was plotted by hand on a display board" and later, a vertical transparent screen. (Ref. 42, pg. 211)

Each potential site was occupied and its capability investigated using a light weight AN/TPS-1B radar and tested with aircraft of the 6th Radar Calibration Detachment. Twenty-nine locations were investigated for the ten sites selected. Most sites were eliminated because of screening or inaccessibility. In the Nome area sites were investigated at Cape Rodney, Point Spencer, Marks AFB, Newton Peak, and Anvil Mountain but none were found to be acceptable. (Ref. 48, encl. 2, pgs. 4,5)

Bids were opened for Wales and Lisburne in the Spring of 1950 with a projected completion date of September 1951. The scheduled completion date was little more than a guess; there was no experience with a project of such scope in such a severe climate at widely scattered sites. Work began at Wales on 9 September 1950, and at Lisburne on 6 September 1950; little work was accomplished during the 1950 season other than site preparation for the 1951 season. St. Lawrence Island (a site had by now been selected at Northeast Cape) was not started in 1950 because of funding limitations. (Ref. 44, pgs. 34-37)

In the interim, prior to completion of the new permanent system, AAC continued to improve its existing temporary air defense system. The AAC defense system by now had evolved into two sectors: Sector I was located south of the Alaska Range and centered around Elmendorf AFB, and Sector II, north of the Alaska Range, was centered around Ladd AFB. A map of the interim air defense system in 1950 shows six stations including temporary early warning radars located at Nome, Kotzebue, and Gambell on St. Lawrence Island. (Ref. 42, pgs. 160-171) The temporary sites were placed on 24-hour operations on 27 June 1950 upon the invasion of South Korea by the Soviet Union's North Korean proxy. With the outbreak of the Korean War, the existing six

stations, including Nome, would serve as a so-called "lash-up" plan until the new permanent sites could be completed. (Ref. 44, pgs. 37 and 38). The lash-up system could best be described as ineffective because of equipment, site, and communications shortcomings.

Operation of the radars at Nome, Kotzebue, Gambell, and security of the three new sites then under construction was the responsibility of the 142nd AC&W Squadron. The parent of the 142nd was the 160th AC&W Group located at Ladd AFB. (Ref. 45, pgs. 5-91, 8-2,3) The 160th AC&W Group and four subordinate squadrons (including the 142nd AC&W Squadron) was composed of units for the Washington and Oregon National Guard which were federalized 1 May 1951 and soon thereafter dispatched to Alaska to man Alaskan AC&W sites. Prior to the arrival of the 160th AC&W Group, the AC&W unit at Nome was a detachment of the 625th AC&W Squadron of the 531st AC&W Group at Ladd AFB. Thereafter, the 625th was incorporated into the 142nd AC&W Squadron. (Ref. 49)

By the fall of 1951, construction of the new AC&W sites was seriously behind schedule and the lash up stations continued to be essential. Tin City and Lisburne were estimated to be complete in December 1952 and work at Northeast Cape was only beginning in the fall of 1951 but it also had a scheduled completion date of December 1952. (Ref. 44, pgs. 51-52)

The permanent system, consisting of ten sites and two Air Defense Control Centers (ADCC) began partial operation in December 1952. (Ref. 44, pg. 5-55) On 8 December 1952 the 710th, 711th, and 712th AC&W Squadrons (Tin City, Cape Lisburne, and Northeast Cape, respectively) were activated, absorbing the personnel of the 142nd AC&W Squadron, and assigned to the 5001st Composite Wing at Ladd AFB (Sector II). (Ref. 45, pg. 5-91 and 8-2,3) All three northwest coastal sites were fully operational by May 1953. The entire AAC system was complete by the spring of 1954 at a cost of \$46 million. Similarly 33 AC&W sites were constructed in eastern Canada under the Northeast Air Command. (Ref. 28, pg. 3)

The permanent AC&W system provided only a minimum acceptable screening. The outer ring did not provide altitude and aircraft could not be tracked continuously from outer ring to the inland GCI facilities. However, the system was capable of being integrated with the DEW line which at that time was only a future possibility. (Ref. 27, pg. 111) In addition to their early warning value, Tin City and Northeast Cape were able to monitor activity at Soviet airfields.

In 1951, the temporary lash-up AC&W station at Nome was described as "to be retained indefinitely", probably in recognition of Nome's status as a priority three site in the Modified Plan, whereas many other lash-up stations were to be phased out upon completion of the permanent stations. However, a status report of November 1952 describes the radar at Nome as due for early phase out. No documentation was found, but presumably, the temporary radar installations at Gambell and Nome were discontinued concurrent with the startup of Northeast Cape, Cape Lisburne, and Tin City in early 1953.

Construction on six additional sites, including Kotzebue, was begun in 1955 and completed in 1958. (Ref. 42, pg. 160-171)

The perimeter early warning sites were standardized with respect to manning, facilities, equipment, an AN/FPS-3 radar, air-ground VHF communications, and radio circuits to the ADCC. Each was nearly identical. The garrison at each northwest coastal early warning AC&W site was 115 airmen and 7 officers. Each was a bleak uninhabited site located near a prominent elevation

adjacent to the sea. A radome was located on the prominence (Tin City elevation 2289, and Cape Lisburne elevation 1586). A camp and air strip was located at its base connected to the radome by an aerial tramway. The sites, because of their prominent topography, were notorious for bad weather. Winds of 120 mph had been recorded in the vicinity of the radar sites. (Ref. 44, pg. 52) A radome for protection of the equipment was an essential requirement because of the weather. Weather conditions were severe enough to cause deflation of the radome at Tin City on 21 April 1953. (Ref. 58, frame 425) In addition to carrying passengers and freight, the tramway towers carried messenger and power cables. (Ref. 37, pg. 153) Some towers extended as much as 210 feet. Design of the original tramway was inadequate: tramways were inoperative during high winds, were overly stressed by severe icing and wind loads, and were inadequate for handling needed freight volumes. (Ref. 37, pg. 155) During the winter of 52-53, neither the tramways nor cables (from radome to operations shacks below) operated satisfactorily because of severe weather conditions. At Tin City the tramway became inoperative during first part of November 1953. In January the radome ran short of food and the only means to replenish the food supply was by back packs up the mountain. (Ref. 60, frame 798) I understood that crews worked for a week topside at the radome and then were relieved for a week (if the tramway could be made to work). Twelve 100 KW Cummins AC diesel generators provided power for each site. (Ref. 45, pg. 10-63) Water was in short supply at some sites and required rationing. (Ref. 45, pg. 5-48) Other than the above described problems, the AC&W sites were new construction and relatively good accommodations, particularly when compared to facilities at Nome Field.

Because of the severe weather for aircraft operations at the AC&W sites, it was very difficult to service them from Ladd AFB (Fairbanks), Elmendorf AFB (Anchorage), or Galena. Hence, a close by military airfield at Nome was crucial to the support of the AC&W sites. Nome Field served as the logistics hub and was used for forwarding supplies to the outlying detachments. Its assets were its central location, and large storage facilities, both warehouse and cold storage. However, weather was only moderately good for aircraft operations, low ceilings and rain were common, and no Ground Control Approach was available on the base although there was a Civil Aeronautic Administration station. (Ref. 45, pg. 5-76)

There was an annual seaborne cargo movement by the Military Sea Transport Service (MSTS), called Operation Mona Lisa, in July/August when the sea ice retreated enough to make the AC&W sites and Nome Field accessible by sea. (Ref. 15, pg. 189) The initial Mona Lisa was in 1951, the year that saw the breaking of ground along the coast for the first radar sites. (Ref. 20, pg. 51)

Urgency for protection against a perceived Soviet threat was so imperative that many huge investments had to be made despite the prospect of near-term obsolescence from evolving new technologies. The AC&W system was designed to detect and intercept manned aircraft but in the mid-fifties nuclear weapons technology and rocket technology were rapidly evolving. The Soviets were developing long range missiles as a way to counter U.S. superiority in long range aircraft and nuclear weapons were reduced in size to where they could be carried by missiles. With the first successful Atlas ICBM test in December 1957, a future was foreseeable where the AC&W sites would become militarily obsolete.

Changing technology and the emergence of alternative ways to acquire the needed data caused many and substantial modifications to the AC&W sites through the years. The trend was to improved data acquisition, more automation, and fewer personnel. "The original AN/FPS-3 Search Radar was replaced by AN/FPS-20 and AN/FPS-93A Search Radars. The latter was a modified version of the AN/FPS-3." (Ref. 42, pg. 211) Three AC&W sites (none related to Nome)

were closed as early as 15 May, 1963. Northeast Cape was closed in 1969. "By the 1970s, the AC&W system had become expensive to maintain and was obsolete." (Ref. 4) The system was modernized and replaced with minimally attended radars in 1983. (Ref. 42, pg. 239) All military personnel were phased out by September 1983 and a small number of contract civilian personnel remained at the sites to provide maintenance. (Ref. 42, pg. 240) A final phase of radar modernization was completed in 1985 with installation of AN/FPS-117 minimally attended radars. Further subsequent implementation of technology alternative to the AC&W sites include over-the-horizon (backscatter) radar, the North Warning System, and two AWACs stationed in Alaska.

## 5.2 Anvil Mountain Radio Relay

Electronic intelligence from the AC&W sites was transmitted by voice to the Combat Operations Centers. However, the three northwestern coastal AC&W sites had weak and unreliable signals. Hence, a radio relay station was located atop Anvil Mountain for the purpose of rapid and clear communication between the sites and the Combat Operations Center. Because three of the five early warning AC&W sites passed through it, the three closest to the Soviet Union, Anvil Mountain was a critical link in the system.

Prior to June 1952, there was no relay station on Anvil Mountain. Initially, communications from the three northwest coastal AC&W sites were relayed through AC&W Detachment A-1 at Nome Field. High frequency continuous wave radio was the basic means of communications with the sites. In April 1952, Project Opportunity Strikes proposed VHF voice and teletype circuits between all sites and the ADCC. "Radio communications in the high and low frequency spectrum have always been erratic and undependable because of the effect of adverse ionospheric conditions existing in the extreme northern latitudes." Very high frequency found an apparent answer for communications problems in Alaska. In late June 1952 successful tests were made between the three coastal sites and Anvil Mountain. (Ref. 46, pgs. 33, 82-84)

The Anvil Mountain site was located on the mountain top immediately adjacent to the rock formation which gives Anvil Mountain its name. It was a cold, barren, windswept site overlooking Nome Field with a panoramic view of the Bering Sea and the mountainous interior of the Seward Peninsula. A rough road climbing the north side of the mountain served the site, but for much of the year the site was accessible only by tracked vehicle. The site consisted of three large bedspring antennas and two quonset buildings housing equipment, generators, working area, and living quarters to accommodate the staff. The staffing was ten airmen and one civilian technician.

Until July 1955, all communication to/from the AC&W sites was the responsibility of a special communications squadron. Prior to 1953 it was the 26th Communications Squadron. The 10th Radio Relay Squadron was activated in February 1953 concurrent with inactivation of 26th Communications Squadron (the 10th was manned by personnel of the 26th). (Ref. 18, pg. 40)

The 10th Radio Relay Squadron had a complement of 8 officers and 176 airmen. The squadron's responsibility was: "maintenance and operation of VHF and microwave communications .... in support of the air defense system in general, and the individual AC&W sites in particular." The 10th Radio Relay Squadron had twenty detachments at or near AC&W sites and at relays. Detachments ranged in strength from 4 to 14. Anvil Mountain was Detachment No. 11 (Cape Prince of Wales was No. 10, Northeast Cape was No. 12, and Cape Lisburne was No. 15). Apparently in 1954 there was also Detachment No. 19 at Nome Field; but nothing about it has been found other than its number. (Ref. 20, pg. 30) The 10th Radio Relay was understood to be

the last unit to talk to U2s before they entered Soviet airspace and the first to contact the U-2s when they exited Soviet airspace. (Ref. 2)

While some of the 10th Radio Relay detachments were located in the 11th Air Division's sector of operation, all 10th Radio Relay detachments reported to the squadron headquarters at AAC. (Ref. 58, frame 449) AAC Operational Plan 1-55, on 18 July 1955, directed the 10th Radio Relay Squadron be deactivated and that the functions and personnel of the 10th Radio Relay Squadron revert to the two air divisions within their respective defense sectors. Thereupon, Anvil Mountain Radio Relay became Detachment 2 of the 11th Air Division (Defense) at Ladd AFB. (Ref. 23, pg. 73,74)

Detachment 2 of the 11th Air Division (Defense) was discontinued effective 1 June 1956 and became Detachment 2 of the 5001st Air Base Group. (Ref. 64, frame 1518) Detachment 2, 5001st Air Base Group was discontinued effective 1 November 1957 and became Detachment 1, of the 5060th Support Group. (Ref. 57, frame 81,82)

In 1956, the northern sector radar system controlled from the Ladd Air Defense Control Center consisted of four early warning sites, and two ground control intercept sites. Very high frequency (VHF) point to point communications were operational between the 11th Air Division ADDC and all AC&W sites. High Frequency (HF) communications joined all radar sites with the 11th Air Division ADDC and provided backup facilities for the VHF. However, the communications system connecting the AC&W sites and the ADCC was unreliable. Furthermore, "By the simple process of jamming the receivers at Anvil Mountain, the Division would lose all VHF contact with Wales and Lisburne; the Northeast Cape might or might not be able to send information to Cape Romanzof under such conditions." (Ref. 63, frames 1337-1341)

A fire destroyed the Anvil Mountain station on 3 April 1956. "Without Anvil Mountain, three coastal radar sites lost all voice communication with their Ground Control Intercept (GCI) for a period of 24 hours. An emergency installation at Nome provided temporary relief." (Ref. 24, pg. 117)

The Radio Relay detachment reported to the 11th Air Division at Ladd AFB (after 18 July 1955) and was not under the command of Nome Field. However, Nome Field played an essential role in supporting the Radio Relay detachment, doing what ever was necessary to meet the needs of the Radio Relay Detachment. One example stands out. After the 3 April 1956 fire which destroyed the Anvil Mountain relay station, Nome Field was tasked with providing replacement facilities. Within three weeks, material was obtained, buildings were constructed on sleds, Radio Relay detachment personnel installed electronic equipment in the sled-mounted buildings, snow roads were constructed, the sleds were hauled to Anvil Mountain, and the system was fully back in operation. Thereafter, until the closure of Nome Field, Radio Relay detachment personnel were quartered in the Birchwood hangar at Nome Field. After the closure of Nome Field in December 1956, the Radio Relay detachment was quartered at a Nome hotel.

White Alice, a new more reliable system based on tropospheric scatter, replaced the VHF system in 1958(see Section 5.4). White Alice was also expected to greatly reduce vulnerability to jamming. Anvil Mountain Radio Relay was phased out concurrent with White Alice startup in 1958. The foundations for the Anvil Mountain Radio Relay antenna and buildings remain, near the rock for which Anvil Mountain is named, about one-half mile west of the White Alice site.

### 5.3 Distant Early Warning Line

An August 1952 an MIT study urged a line of radars across northern Alaska and Canada, to be called the Distant Early Warning Line, connecting the Alaskan Air Command AC&W sites with the Northeast Air Command AC&W sites. The DEW line would provide an electronic screen designed to flash a warning to defense centers in the United States and Canada within a matter of minutes. Located at the 70th parallel, it would stretch 3,000 miles across the barren wastes from Cape Lisburne to Cape Dyer on Baffin Island. Tacked on either end (Greenland to Scotland, and Alaska to Hawaii) picket ships and Airborne Early Warning and Control (AEWC) patrols were proposed. (Ref. 26, pg. 85; Ref. 28, pg. 7)

USAF strategy was focused on deterrence, the philosophy "that no nation, no matter how hostile would court destruction from SAC bombers by attacking the United States." Hence the USAF was not sympathetic to large expenditures for air defense in 1952. SAC was concerned that funds for a DEW Line would be subtracted from SAC and therefore diminish the defense of the United States. Never-the-less, construction of a test DEW line station was begun at Barter Island in 1953. (Ref. 28, pg. 9)

In August 1953 the Soviets tested an H-bomb. President Eisenhower approved the DEW line project on 24 February 1954 and made USAF the agency of implementation. (Ref. 28, pg. 11) Circa 1955, construction on the Distant Early Warning (DEW) line began. Western Electric Co. was the prime contractor responsible for the electronics and Morrison-Knudsen was the primary subcontractor responsible for heavy construction. The original DEW line thinking was to extend 3,000 miles from Cape Dyer on Baffin Island, joining the Alaskan Air Command AC&W system at Cape Lisburne. (Ref. 23, pg. 171) However, the scope of the system was under constant evaluation and at one time Morrison-Knudsen was directed to begin work on a westerly extension that would replace the three northern coastal AC&W stations supported by Nome Field. This would have required extensive operations out of Nome Field. Shortly after the order was given, it was withdrawn and the AC&W sites were integrated with the DEW line and took the place of additional DEW line installations.

The final Alaskan system consisted of the 18 AC&W sites and 6 DEW line stations. Early in 1957 several DEW stations commenced to operate on a test basis; and the DEW line was formally dedicated at Barrow on 13 August 1957 and was declared fully operational in October 1957. AAC was assigned operational responsibility for the Alaskan segment, but it was transferred to the Air Defense Command in February 1958. In January 1957, the Joint Chiefs authorized an Aleutian extension which became operational in April 1959. (Ref. 26, pg. 85; Ref. 27, pg. 95; Ref. 42, pg. 170,171)

### 5.4 White Alice

The military provided Alaska's only communication links to the lower 48 States until the advent of satellite technology. Both military and civilian traffic were carried, with military naturally having priority. Communications consisted of VHF links with backup in the HF band. It was outdated, non-procurable World War II equipment. (Ref. 24, pg. 202) The outmoded system was planned to be used for the AC&W sites but upon their completion the existing system was found to be grossly inadequate for an air defense system. Barter Island was the first DEW station, constructed as a trial balloon prior to initiation of DEW line construction. However, the AC&W search radar jammed VHF signals from Barter Island. (Ref. 29, pgs. 3-5)

"Maj. Gen. George R. Acheson, who assumed command of AAC in February 1953, found the communications situation appalling. Discovering a better solution to this problem became one of his major concerns." A report which identified the communication needs was completed in May 1954 and submitted to the Secretary of Defense. "The report was sent to AT&T with instructions to develop a reliable communications system for Alaska." (Ref. 42, pgs 171-173)

AT&T submitted its recommendation to the Defense Department in November 1954. The answer to the special requirements was a "new system of over-the-horizon radio never used before on so large a scale...forward propagation tropospheric scatter." (Ref. 26, pg. 107) The new system, to be called by its code name White Alice, transmitted its signals between stations (not to exceed 200 mile spacing) by reflecting its signals off the tropospheric layer of the earth's atmosphere, and linked AC&W sites and DEW line sites into a cohesive network. Like previous Alaskan communication systems, it provided extra capacity to carry civilian messages in addition to its primary military function. The Western Electric Company, a subsidiary of AT&T, was awarded the contract in 1955 to build a system of tropo and microwave sites which would connect Alaska's air defense system. (Ref. 42, pgs. 171-173)

Western Electric Co. subcontracted heavy construction work to Morrison-Knudsen. In July 1955 M-K began to move men and equipment toward the sites. "Construction continued to move ahead very rapidly into the fall of 1956, as crews worked around the clock at most sites." On 29 November 1956 the first link (Middleton Island) was placed into operation. The work took three years and 3,500 people to complete at a total cost was \$140 million. The Corps of Engineers constructed 11 of 31 White Alice sites and WECO constructed 20 and installed electronic equipment in all 32. (Ref. 26, pg. 108, 109; Ref. 29, pg. 6; Ref. 42, pg. 172)

White Alice was initially operated by the Alaskan Command. The Air Force established a separate command, the Air Force Communications Service and the White Alice responsibility was transferred to the AFCS in January 1962. Subsequently, on 1 July 1962 AFCS absorbed the Alaska Communication System of the Signal Corps. (Ref. 42, pg. 173)

The typical White Alice site consisted of 60' reflectors with feed horn, equipment building, and a dormitory. A White Alice site on Anvil Mountain was selected to link Granite Mountain to the AC&W sites at Northeast Cape and Tin City. The Cape Lisburne AC&W site was connected to Granite Mountain through a White Alice site in Kotzebue. The Anvil Mountain White Alice site was constructed in 1957 and opened 9 January 1958 (official date of acceptance was 25 February 1958). Anvil Mountain was a typical site except that it had no dormitory (lodging was in Nome) and it had four antennas. Originally two 60' antennas faced Northeast Cape (126 miles) and a second set faced Granite Mountain (136 miles). Tin City communicated with Northeast Cape but was later linked directly to Anvil Mountain. (Ref. 29, pg. 4)

Upon completion of the Anvil Mountain White Alice site in 1958, the Anvil Mountain Radio Relay site was deactivated.

Reliable communication with the AC&W and DEW line was an urgent national priority. Hence a huge investment was made in White Alice on the basis of unproved technology which might become quickly obsolete. "It is an example of a technology that evolved so rapidly that its development, achievement peak, and obsolescence occurred within ten years." Satellite telecommunications also rendered White Alice obsolete. The Anvil Mountain White Alice site was

deactivated in 1978. The abandoned buildings and antenna are still in place atop Anvil Mountain. (Ref. 29, pg. 3)

### 5.5 Armed Forces Radio Service

The AFRS operation at Nome Field was unique. It began as a typical AFRS operation during World War II, intended to inform and entertain troops. However, as the Cold War evolved, the AFRS at Nome Field developed its own special mission, perhaps unlike any other AFRS station, to counter Radio Moscow propaganda broadcast influence on the civilian population.

In 1951 AFRS had a 50 watt transmitter and was the only radio service in the Bering Sea coast. In the summer of 1951, a new 1,000 watt transmitter was installed providing a daytime range of 300 miles, and a nighttime range of 600 miles. "The new enlarged station will be the most powerful AFRS installation in Alaska. The need for such a service was stressed recently by L/C M.H. Marston of the Alaska National Guard. He termed the Red broadcasts a menace to the impressionable Eskimos." (clipping from the "News" of 9 May 1951, in Ref. 35)

AFRS reported to Elmendorf AFB but conducted its operations from Nome Field. The mission of AFRS at Nome was not to support Nome Field or the AC&W sites. Each AC&W squadron had its own small AFRS. The mission of the AFRS in Nome was to provide radio for the Eskimo villages and other civilian population. An important issue was the belief that the Soviet Union maintained an active underground in northwestern Alaska. While the civilian population as a whole had demonstrated their loyalty as evidenced by their service in the Alaska Territorial Guard (and later the National Guard), there was concern about the loyalty of some in the civilian population at that time; Soviet forces had been stationed at Nome during World War II and many of the Eskimo population had gone back and forth to Siberia before the Cold War and had relatives on the opposite side of the Bering Strait.

Despite closing Nome Field in December 1956, the Alaskan Air Command decided to keep the station on the air with three objectives: community service, civil defense, and to counter Radio Moscow propaganda. AFRS was relocated to the Wallace Hotel in downtown Nome, a new downtown 200' mast for AFRS was completed, and the operation continued.

By 1960 plans developed for a commercial radio station in Nome, KICY. FCC regulations forbid competition with commercial radio. The Commander in Chief Alaska determined that AFRS would continue because: KICY was not on the air all 24 hours, AFRS had a civil defense function, the permanence of KICY was in question, KICY emphasis was to be on religion and conservative music, and there was strong community interest in continuing AFRS. KICY went on the air on 17 April 1960. On 1 May AFRS reduced its operating hours to between 2300 to 0600. On 9 May 1965, the Wallace Hotel burned destroying all of the AFRS equipment and the AFRS operation in Nome ceased. (Ref. 38)

### 5.6 Army Security Agency

The 333rd Communications Reconnaissance Company, a unit of the Army Security Agency, arrived in Alaska in October 1951. The First Detachment set up D/F sites at Nome, Gambell, Kotzebue, Wales and Point Barrow. Nome Field was a relay point for all other sites to report information that would be sent to headquarters at Ft. Richardson. The 333rd was set up and operational by April 1952. David J. Aul (see Appendix C) arrived in Nome in July 1952. The



Nome Field unit was Detachment T-23 with 56 men commanded by W/O James Haughney. Aul recalls that Gambell had about 22 and each of the other sites about 12. Aul left Nome in April 1953. Aul does not know how long the 333rd remained at Nome Field.

### 5.7 USAF Security Service

Paul D. Heckh (see Appendix C) was with Detachment 3 of the 3rd Radio Squadron Mobile, a unit of the USAF Security Service. The 3rd RSM was deployed to Alaska in May 1950. The 3rd RSM was headquartered at Elmendorf and carried out confidential missions for its parent command USAF Security Service. The Army Security Agency and Air Force Security Service were located across a narrow street from each other at Nome Field and operated separately in performing the same mission, more or less. That mission was to intercept, monitor, decode, and interpret Soviet messages. The date of the 3rd RSM arrival and departure at Nome Field is unknown. Heckh was at Nome Field from Jan 1952 to Jan. 1953. References suggest the 3rd Radio Squadron Mobile detachment at Nome Field had a strength of 119 and state the 3rd RSM *planned* to move to St. Lawrence Island about 1 September 1952. (Ref. 15, pg. 31-32, and Ref. 54, pg. 13)

### 5.8 Navy Photo Reconnaissance Squadron

The Navy had a mapping squadron at Marks/Nome Field during summers from 1947-1953. They had a minimum of four VP-61 (Navy version of B-24), and fifty people. The mission was aerial mapping north of the Brooks Range in support of Naval Petroleum Reserve Four. They also flew out of Kodiak and Kotzebue. The Navy unit came during summer on temporary duty and stayed in the Arctic Indoctrination School barracks (AIS had winter classes and vacant barracks in the summer).

The consensus of Air Force personnel who were at Marks/Nome Field at the time was that the Navy was photo mapping the Siberian coast. That seems to be a reasonable guess given the long range aircraft being used and the general background at Nome Field where almost everyone was either doing some sort of electronic surveillance of the Soviets or supporting others who were.

## 6.0 Closure

In the late 1940s the debate on whether Marks AFB should be closed centered on the issue of whether Marks was too far forward to serve as a forward base for the temporary deployment of fighters. The debate was resolved with the closure of Marks in November 1950. However, soon after being reborn as Nome Field to support the AC&W sites and other activities, the debate began anew. With the early warning radar sites under construction, perhaps there would now be sufficient warning that it would be feasible to use Nome Field for forward deployment of fighters. Then there was the issue of property rights; under the terms of the lease the United States Smelting and Refining Company could assert certain rights which might be incompatible with aircraft operation. The continued deterioration of the base was another issue.

Nome Field was under continuing reassessment between 1951 and 1956. It was almost like the smitten swain picking petals from a flower and reciting "she loves me, she loves me not." After the fighter issue was reopened, the new closure debate determined once again that Nome Field was too far forward for a fighter base but was needed to support AC&W and other activities. But after five more years of debate and vacillation, the issue was decided in favor of closure because of the incompatibility of mining and aircraft operations and the deteriorated condition of the base. In the end the situation became a death spiral; because of the debate on closure, appropriations for maintenance and repair were withheld, and as the condition of the base deteriorated, the argument for closure became stronger. The next several pages illustrate, in chronological order, the debate as it flip flopped back and forth.

1951. Request was made by 5001st Composite Wing to plan for the possible use of Marks as an operational base for fighter aircraft. (Ref. 14, pg. 149) While this issue had been thoroughly addressed in the late 1940s, the coming operation of the early warning sites in 1953 provided an early warning component that was not in the previous analysis. While there was no warning of attack at Marks in the previous model, the early warning sites could provide perhaps ten minutes of warning. However, ten minutes was not sufficient to change the results. "After careful and detailed study of the future of Marks AFB outside of Nome, it was concluded by the Command that the field be retained principally as support to the 3rd Radio Security Detachment, adjacent AC&W sites and HF/DF facilities. The 5001st Composite Wing at Ladd AFB was advised however, to reduce to an absolute minimum the number of personnel at Marks, to close all non-essential buildings, and to make arrangements for support of the remaining personnel in the event the utilities system failed." (Ref. 15, pg. 22)

1952. Marks AFB, recently renamed Nome Field, is on a care taker basis and provides support for AC&W activities. "It still persists as a "sore spot" for Alaskans living in that part of the territory, for its deactivation deprived many of a source of livelihood as well as any protection of the Seward Peninsula area. The touchy subject was once again opened at the time of Congressman James I. Dolliver's (Rep., Iowa) visit to AAC. At a luncheon tendered the Representative in Anchorage, General Kepner's aide, Col. A. Field, said that Nome Field had been abandoned on the advice of former Commandeer-in-Chief Alaska General Twining, the decision being made "on the basis of planes we had at the time in Alaska". Later, Col. Field told his audience, General Kepner decided that the field might be put to good use as an advance base for fighter planes; "he asked Congress for funds to do this on two separate occasions, and each time has been denied." The Nome Nugget was cited in the same report: "The rise and fall of Marks AFB will be an interesting chapter some day when historians record how and why the base was built during World War II and how it was

practically abandoned...as far as protection is concerned...by our military leaders who placed 12,000 good Americans outside the perimeter of defense where they still remain." (Ref. 16, pg. 115,116)

1952. "Since the inception of AC&W, attention was lent to possibility of extended fighter facilities. Why then, was Marks AFB deactivated and converted to a semi caretaker status under the name Nome Field? Marks was too far forward, on the perimeter of the early warning ring. Secondly, it was highly vulnerable, located minutes flying time from Soviet fields. Thirdly, it was difficult to provide logistic support. Marks fell outside the modern concept of warning-interceptor tactics." (Ref. 17, pg. 111)

1954. "The idea of phasing out the Air Force facility at Nome Field reached back into the preceding reporting period when the United States Smelting Refining and Mining Company decided to assert proprietary rights." The lease from USSRM extended to 3 December 1990 but flying, according to the legal instrument, was subordinate to mining operations. Projected USSRM operations at the west end of the runway threatened flight operations. "The 11th Air Division wondered how it would be able to support such northern coastal sites as Lisburne, Wales, and Northeast Cape if the east-west runway were placed under restriction. Nome had always been the logical staging area and refueling stop for aircraft ferrying cargo and passengers from Ladd AFB to remote AC&W stations in Sector II. Lately, however, gold-dredging operations by the mining company in the vicinity of the runway made flying hazardous. Alternative recourse to the north-south runway, in the opinion of Ladd personnel, would not be entirely satisfactory." (Ref. 21, pg. 110 and Ref. 24, pg. 67)

1954. "Real property had fallen into such a state of disrepair that only complete rehabilitation or new construction would place the base on a mission footing. Was it feasible to bring remedial action and expend funds on privately owned property?" (Ref. 21, pg. 110)

1954. Consequently, "...General Acheson directed formulation of a plan aimed at supporting the coastal sites out of Galena, rather than Nome. It was staff contention that Nome was not a military necessity, but rather a desirable, convenient piece of real estate, which provided the Air Force a relatively economical supply base." A tentative phaseout date was set for 1 October 1955. "Once the phase-out was executed, Nome would then be converted to a recovery and refueling station only, total Air Force complement not to exceed ten personnel." (Ref. 21, pg. 110, 114)

1955. Discontinuance is planned, all real property except three 300 KW generators, would be turned over to the CAA. Late in the spring of 1955 two events changed the plans for discontinuance: the CAA announced (April) it was planning to budget \$650,000 for FY 1957 for repair of the airfield, and the decision(June) to extend the DEW line around the west coast of Alaska. The AAC now saw merit in keeping Nome Field open under a concept wherein the Western Electric Company (prime contractor of DEW construction in Alaska) would operate all Air Force facilities at Nome. (Ref. 23, pg. 88)

1955. The Air Force reversed its thinking on extending the DEW line by the fall of 1955 and WEC advised AAC that the airfield was no longer needed. However, the WEC subcontractor for White Alice (Morrison-Knudsen) asked for use for storage and temporary use of the main hangar at Nome Field. (Ref. 23, pg. 89)

1956. "WEC and its construction sub-contractor, Morrison-Knudsen, needed the northern base as a supply point for White Alice program. Finally, the Nome AFRS and nearby Anvil Mountain Radio Relay required minimum local support." Operations Plan 1-56 of 6 June 1956 ordered the field kept open until January 1958. The Eleventh Air Division entered a contractual agreement with Morrison-Knudsen to convert a portion of the Birchwood hangar into a mess for 70 men and into billeting space with an emergency capacity for 180 men. The Headquarters building was closed and those personnel housed and fed in the Headquarters building were relocated to the Birchwood hangar. In addition AAC withdrew from disposal the boiler plant, emergency generator, and water supply. As a final action, AAC also sought to retain eight diesel and six avgas storage tanks earmarked for disposal. (Ref. 24, pg. 67-69)

1956. "No installation in Alaska, with the possible exception of Point Barrow, had been in and out of military history as frequently as Nome Field. What interest the Air Force held was usually fleeting, pegged more to necessity of the moment than any other consideration. For one thing, Nome Field was not a military possession, rather it was held by lease from the CAA. For another, the strip required extensive rehabilitation to bring it up to USAF standards. Finally, defense plans did not embrace Nome as a base for permanent operations. The airfield however commanded considerable attention as White Alice and Dew Line construction dotted the North. It became a focal point for shipping, storage, transportation, and assembly. Most recently M-K(Morrison-Knudsen), subcontractor on the vast communications and electronics projects for Western Electric, developed an interest in Nome Field; its hangar served as equipment storage area and its runway accepted almost daily cargo flights." (Ref. 25, pg. 86)

1956. "With the conclusion of M-K interest in Nome, the Command re-evaluated its position. A study prepared by Operations indicated that "airlift West" could still be conducted more efficiently and economically through Nome than through Galena, .... However, to retain even token forces there and to continue aerial operations meant putting 750,000 gallons of fuel in the standby tanks for the following year's activities. And this was the crux of the problem: did the Air Force wish to expend money to support personnel and refueling service at an installation which it did not own?" (Ref. 25, pg. 86)

1956. "Finally the balance swung the other way. The Command decided to close out once again all activity, transfer the holding detachment to Galena, and remove AFRS personnel to the Wallace Hotel in downtown Nome." Two actions remained: dispose of all Air Force holdings on Nome Field except for the main hangar and related property as well as POL tankage, and arrange for a contract with Standard Oil either directly or through the CAA. (Ref. 25, pg. 87)

Nome Field was subsequently closed on 15 December 1956. The Anvil Mountain Radio Relay and AFRS operations continued with staff being housed in Nome. (Ref. 2)

Linda Conley, City Clerk, documented that the Birchwood Hangar was demolished in 1985. It was the last building at Nome Field, other than the gymnasium which still exists and is used for materials storage by a contractor. Other buildings were removed through the 1970s. The tank farm lasted until about 1992. The suspension bridge over the Snake River went about 1994 and the highway bridge about 1995.

After closure of Nome Field, the 5003rd Air Base Squadron, formerly at Nome Field, carried on the former Nome Field operations out of Galena. Galena was "one of two forward operating bases that AAC maintains in western Alaska", the other being King Salmon. After the close of Nome,

Galena was the most forward military airfield and was credited with the first (on 8 September 1963) and several other successful intercepts of Soviet aircraft in the early 1960s. (Ref. 42, pg. 217, 239)

As Nome Field was closing, the status of AAC was as follows. The 10th Air Division (Elmendorf) was responsible for the radar sites in the southern sector, a control center, and three fighter interceptor squadrons. The 11th Air Division (Ladd) was responsible for the northern sector (north of the Alaska Range) including radar sites in the northern sector, a control center, and three fighter interceptor squadrons. A major base at Shemya, near the end of the Aleutian chain served traffic to the Far East, and Eielson provided a major base for SAC. By 1957, Alaska's air defense came under the control of NORAD and was controlled from the Alaskan NORAD Region Command and an AAC Control Center at Elmendorf. "By 1957, AAC had reached the peak of its air defense strength. That year marked the beginning of a steady decline in forces, which was caused by the Soviet switch from a bomber force to intercontinental missiles as its major strategic offensive weapon, and, later, by the demands of the Southeast Asian conflict." (Ref. 42, pgs. 187-194)

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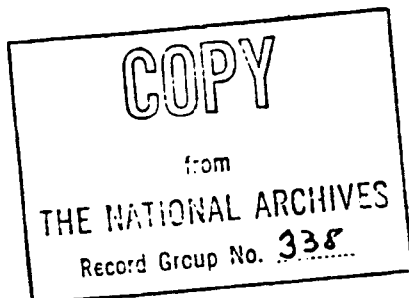


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*US Army report of construction of Marks Field*

DEPARTMENT OF  
TRANSPORTATION  
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WESTERN REGION  
HOME, ALASKA

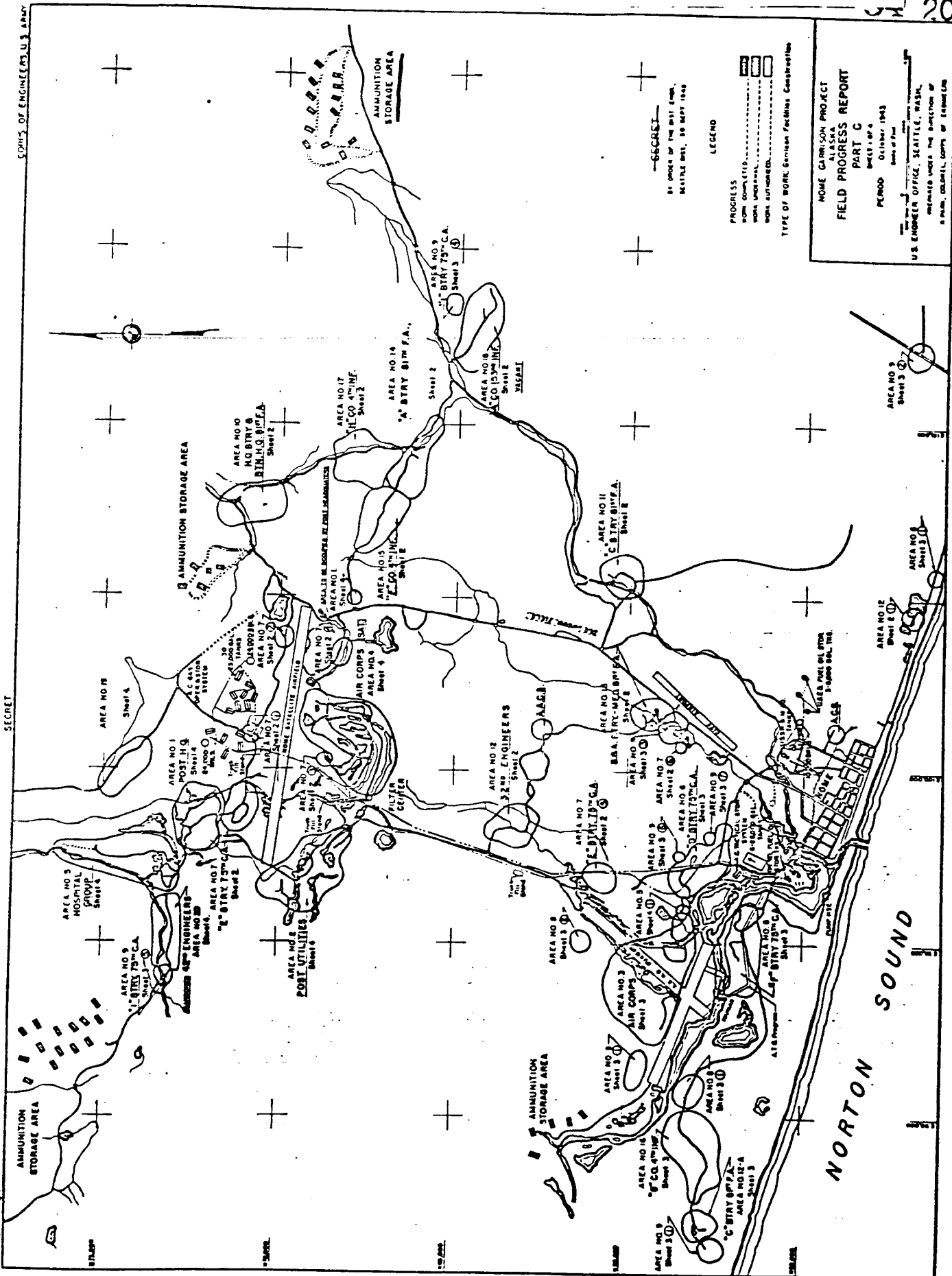


*Alaska Department*

*From Herb Anderson  
to Joe Hall 1987*

*MAY 1944  
CRCA 1943*

W. C. Lewis (Pelling), NARS, August 23, 1982



W. C. Lewis (Duelin), NARS, August 23, 1982

WVHPC, CG 323, Box 373, Alaska. 12 Sept, 1982

NOTE

Location:

Noms, Alaska  
(165° 27' W. Long; 64° 31' N. Lat.)

Initial Garrison Arrival: 3 September 1941

Initial Garrison Strength: 9 Off - 221 EM

First Post Commander: Capt. Garnett W. Martin

First construction crew preceded garrison, arriving on 17 July 1941. Construction began on 23 July under the supervision of Capt. John W. Baum, CE.

Post established to provide a bomber operating base and garrison for protection of Alaska's west coast and for patrolling of the Bering Sea. Later, under ATC, it formed a link in the Alsib Ferry Route to Russia.

W. C. Lewis (Dwelling), NARS, August 23, 1982

North-South runway at Marks field, a 400' extension of the east end of the East-West runway, an 850' extension of the west end of the East-West runway, the paving of parking and surface areas, turn-arounds and warm-up aprons at Marks field, and bituminous road surfacing in the Marks field area. Extensions to lengthen the North-South runway to 6,000' are also planned.

Work was undertaken shortly before the end of the period to extend the Moonlight Springs satellite field to 6,000' from its present length of 5,000', a reduction of 1,500' from the originally authorized 7,500'. A 50,000 square yard parking apron will be provided in the vicinity of the two Kodiak "T" hangars at the Moonlight Springs field. Much of this area has already been brought to grade. An oil treatment similar to that provided for the field last summer will be given the new area.

Both runways at Marks field are being extended to approximately 6,000' each. Finished surfacing of 190,000 square yards of parking apron at this field will be completed. The Moonlight Springs runway will be given a second oil treatment, which will also be applied to the 50,000 square yards of parking apron plus two 75' wide access taxiways.

Completion of plan "D" and the unfinished items of Plans "B" and "C" will provide the Nome garrison with two paved runways 6,000' x 300' at the main field, and one 6,000' x 300' oil-treated satellite runway at the Moonlight Springs field by next fall (1944), together with substantial increases in parking and taxiing areas. Construction of a second Birchwood hangar at Marks field has been authorized; but as yet no decision has been made on whether it will be built.

STORAGE FACILITIES: Starting on 15 May, as soon as the ground had thawed enough so that it could be graded, twenty Cowin warehouses were dismantled from dispersed sites throughout the post, and seventeen were relocated on concrete

## Appendix A

### 1944 Construction Report

The following has been retyped from a document in the possession of Mary Knodel of the Arctic Trading Post in Nome. A xerographic copy of the document was made but the original and copy are in very poor condition. Hence, it has been retyped to capture and preserve the information. Words shown as xxx are not legible. A page, hand numbered 14 is missing. The title and date are missing. Narration in the document describes status through the May 31, 1944 with items scheduled for June and July of 1944 being described in the future tense. The document most likely is a progress report on base construction made by the U.S. Army Corps of Engineers. An almost illegible map, that may be from an earlier version of the document, carries a title block of the U.S. Engineer Office, Seattle, a date of October 1943, and a title Field Progress Report, Nome Garrison Project. Handwritten notation at the top of page one says "NARS, August 23, 1982. Nome - History. Washington National Records Center, Suitland, Maryland, Record Group 338, Box 373 Alaska Defense Command, Historical Report, Alaska xxxx xxxx".

The Nome project was authorized to provide an air base with maximum facilities for medium bombardment and fighter squadrons, and also a bomber operating base for long range patrolling of the Bering Sea and protection of the west coast of Alaska.<sup>2</sup>

The movement of troops to Nome began slowly, starting with the arrival of a single officer, Maj. Floyd M. Hayes, QMC, on 1 September 1941. Two days later Capt. Garnett W. Martin, Commanding Officer of Company A, 153<sup>rd</sup> Infantry, accompanied by five enlisted men, arrived to make preliminary arrangements and to meet incoming troops. On 2 October 1941 nine officers and 221 enlisted men arrived from Seattle aboard the USAT DAVID W. BRANCH. The troops moved directly in partially completed quarters under construction by the U.S. Army Engineers Department about one mile west of Nome.

Prior to the troop arrival the first construction crew had reached the post, arriving from Seattle aboard the SS COLUMBIA on 17 July 1941.<sup>3</sup> Construction began six days later, on 23 July 1941, under the supervision of Capt. John W. Baum, CE.<sup>4</sup>

The initial construction consisted of buildings and utilities, the airfield having been already started by Civil Aeronautics Administration contractors before the troop arrival. This field, consisting of a North-South runway 4,700' x 300' and an East-West runway 4,200' x 300', was placed in service about 1 October 1942.<sup>5</sup> In conjunction with the city airfield this field provided adequate facilities for handling any type of plane that the United States had in production at the time.

Construction of the Nome project has consisted of three general phases: (1) Buildings and utilities to accommodate the original garrison, (2) Dispersed housing and facilities to take care of the large influx of combat and service troops during June and July 1942, a large war reserve aviation gasoline storage system, and a two-hundred-bed hospital, and (3) Runway improvements and extensions, additions to communications facilities, and housing and facilities for approximately 100 officer and 900 enlisted men, including Russian Ferry Command personnel.

The garrison site had been chosen previously by the Area Engineer and staff officers of the Alaska Defense Command. By about the middle of December 1941 most of the outside construction had

been completed. The main emphasis was placed upon the completion of utilities and the station hospital, which was located three miles north of the original garrison site. The hospital was finished and occupied on 31 January 1942; but about nine weeks later, on 8 April, it was completely destroyed by fire.

The second construction phase began with the reinforcement of the Nome garrison during June and July 1942 by the air-borne troops of the "Bingo" movement. Due to the urgency of the tactical situation at this time, defensive positions were established first and the garrison facilities temporarily became of secondary importance.

Prior to the arrival of the air-borne troops, all available local building materials, supplies, buildings suitable for housing, warehousing, and shop use had been purchased, leased or borrowed by the garrison command to accommodate the incoming units. New materials and supplies were limited, consisting only of a few tools, lumber, hardware, and fuel.

Valuable help was given the various commanding officers at this time and through the rest of 1942 and 1943 by the United States Smelting, Refining, and Mining Company through its Nome manager. On twenty-four's notice this Company willingly vacated its camps located at Little Creek, Center Creek, and Submarine Beach, and allowed the Army to utilize its stock of materials of all kind, as well as its shops and machinery.

The troops comprising the "Bingo" movement<sup>6</sup> came on a tactical mission, fully prepared to engage the enemy upon their arrival. Although they found no Japanese on the Seward Peninsula, enemy attacks remained a definite possibility. Defensive installations were built immediately. Machine guns, mortars, anti-aircraft and seacoast artillery, and light and heavy field pieces were rushed into position and prepared for action as fast as they could be unloaded. Infantry, Artillery, and Combat Engineer units took over their assigned defense sectors with a few minutes after they had debarked from the planes that had brought them from Fort Richardson.

It was not until the primary defense measures had been taken that the air-borne troops set about the task of preparing for the coming winter. The existing facilities were greatly inadequate for the augmented garrison, which now numbered approximately ten times the original force.

The first arrivals were quartered in tents erected around the CAA airfield utilizing messing and sanitary facilities of the original garrison. As additional troops were flown in at the rate of several hundred a day, it became necessary to set up temporary camps. These consisted of tent shelters, open latrines, and improvised mess halls, the latter usually crude frameworks covered with building paper and roofing. Supplies and equipment were stored in the open under tarpaulins and, in a few cases, in tents. Water was hauled to practically all camp sites from Moonlight Springs by truck and trailer during the summer and, after the snow became heavy, by tractor-drawn sleds.

During this time all men worked seven days a week, often on twelve hour and longer shifts, so great was the volume of work to be accomplished and so short the time remaining before winter closed in. This work was done in addition to the task of manning the outposts and defense installations at all times.

All through the summer of 1942 rainfall was heavy and the wind blew almost continuously with temperatures remaining close to the freezing mark most of the time. The issue rain clothing and shelters were not adequate under such conditions; and the troops improved their living quarters by

using sheet iron and any other available scrap materials that gave any sort of protection from the weather. The first supply boat arrived about 20 July 1942 with tents, organizational equipment, vehicles, etc., and relieved the situation to a certain extent.

As the winter advanced the problems of living increased and outside construction became increasingly difficult. Temperatures fell as low as -46 degrees, and winds at times exceeded a velocity of fifty miles per hour. For fifty-one consecutive days the thermometer registered well below zero, with the wind blowing almost continuously.

Virtually no building materials were received until 20 August 1942, when Quonset huts and panel-building parts began to reach Nome. Shortly thereafter, on 27 August 1942, Brig. Gen. Edwin W. Jones arrived and assumed command, coordinating defense and construction activities to expedite the completion of essential housing and storage structures.

Considerable difficulty was experienced for some weeks because of the fact that key building parts, such as floors and sills, were among the last to be shipped in. The construction program was further hampered when the motor vessel CROWN CITY, carrying urgently needed building materials, ran onto a submerged reef off Sledge Island during a violent storm on 1 September 1942.<sup>7</sup> However, by 15 September, sufficient materials had arrived to allow the building project to go into full production.

Troop labor was used entirely on housing, kitchens, latrines, warehouses, and administrative structures; with civilian employees concentrating on mapping, gasoline storage facilities, utilities, and technical installations. By 6 December 1942, all troops were adequately housed, and mess halls were in useable conditions. On this date 776 buildings were suitable for use.

The heavy snowfall and severe winds of the 1942-43 winter combined to produce a series of violent blizzards from early November to the end of March that made transportation a difficult problem for the garrison motor officers. Roads drifted over almost as fast as they were cleared. Often in a few hours time drifts four to eight feet deep would blow onto a road and make it impassable; and bulldozers, scrapers, and sno-gos worked steadily through out the winter. To haul essential materials and supplies, tractor-towed sleds and Athey trailers were successfully utilized. For emergency communication purposes and for rescue work dog sleds proved invaluable.

In spite of these conditions the garrison performed its tactical mission and worked on post construction during the period, although completion of warehouses, mess halls, cold storage facilities and some housing was deferred until the arrival of warmer weather in April and May of 1943. At the same time soldier labor maintained the runways and handled all snow removal and drainage at Marks field. They also assisted in the CAA construction of the landing field at Moonlight Springs, installed communications nets and laid out and built new roads. All tactical units carried out training throughout the winter.

Fire and fire prevention presented a serious problem. Without permanent water systems, fires could be fought only with emergency extinguishing units. Fire prevention of necessity became of primary importance for all military personnel from the beginning of the Nome project. The most destructive local fires leveled the original hospital, ordinance shop, and a number of Quonset huts being used as living quarters and supply rooms. (Recently, on 1 February 1944, fire destroyed two 24' x 60' Quonset huts and 170' of covered walkway at the new hospital.)



The original warehousing plan called for the dispersion of various types of supplies and shops throughout each area. In the spring of 1943, warehousing which was not useable as planned was moved to new locations and in some cases diverted to other uses.

Second phase construction included a 2,750,000 gallon war reserve gasoline system, built by contract labor and operated on a gravity principle. Large stores of all types of fuel were dispersed throughout all areas and in the hill north of the post.

The station hospital, planned for two hundred beds, was successively reduced to fifty beds during May, June and July 1943. Wards, laboratories, and surgery were to be housed in 24' x 60' Quonset huts. Quarters for hospital personnel, including nurses (who never arrived), were to be 16' x 36' Quonsets, with a central steam plant in a Cowin warehouse, and medical supplies dispersed in Quonsets. Although the buildings were constructed during the winter of 1942-43, the utilities were not begun until May 1943. The walkways were redesigned, many of the Quonsets were moved onto the walkways, the mess hall was enlarged, and living quarters transferred to more suitable locations. By 1 June 1943 the hospital was occupied on a partial basis. It was virtually completed by 1 November 1943.

At the request of the Commanding General, Alaska Defense Command, through its contractor, the Sommers Construction Company, initiated and completed the Moonlight Springs landing field during the second phase. It was begun about 27 June 1942 with maximum effort concentrated on completion of an emergency strip. This strip, 45' wide by 3,000' long, was ready for use forty-five days later. The landing field, 300' x 6,600' was graded and useable by 15 November 1942. Additional work on parking areas, aprons, and taxiways was done in May and June 1943; and an authorized extension on the west end to make a total length of 7,500 feet was started. Priorities for completion of Army Transport Command plan "C" prevented completion of the extension and parking areas, and the surfacing of the entire field.

The third construction phase began with approval of the Army Transport Command plans "B" and "C" by the Commanding General, Alaska Defense Command.<sup>8</sup> In May of 1943 it became evident that the ferrying of Russian aircraft from Fairbanks to Siberia under the Lend-Lease program called for additional facilities at Nome. Therefore an expansion program, known as plans "B" and "C", was authorized. This plan included the diversion of the Snake River to provide ground for the construction of additional parking areas, erection of a modified Birchwood hangar and a 2,000' extension of the satellite field, and new housing for approximately 1,000 officers and men.<sup>9</sup>

Also included in this phase were the grouping of Quonset and Yakutat huts into "Ts", double flooring of quarters and administration buildings, construction of a new Post Headquarters area, relocation of various buildings and facilities, completion of utilities throughout the garrison area, and the building of extensive additions to the communications system by the Alaska Communication System.

Initially, earth moving and the diversion of the Snake river to provide a suitable building area for the accomplishment of ATC plan "C" took precedence over all other construction. The tailing piles were moved to fill the old river channel. A new channel for the Snake River, approximately ¾ mile long, 20 feet deep, and with a bottom width of 50 feet, was excavated. Buildings of the original garrison site were moved, and the high ground upon which they stood was moved to supplement earthwork to the south of the East-West runway of Marks field. This operation had the

dual purpose of providing a new building site for ATC structures and additional aircraft parking area through leveling and filling of the old river at runway level.

Gen. Jones organized the project on a coordinated plan under which all building construction was assigned to military personnel, utilities to the Resident Engineer, and earth moving to the Sommers Construction Company, CAA contractor. All heavy equipment of the Army that could be spared, with soldier operators, was loaned to Sommers to complete the work before the freeze-up. Particularly noteworthy was the tremendous quantity of earth moved by enlisted men of the 32<sup>nd</sup> Engineers Company operating D-8 bulldozers and carry-alls on this project.

The project, involving the clearing and filing of a total area of 160,125 square yards and movement of approximately 625,000 cubic yards of earth and tailings, was begun on 11 August 1943. All scheduled ground clearing operations were completed ahead of schedule.

Sufficient area had been leveled and given a finished grade by 16 September 1943 to allow the first group of buildings to be started that day on the 40,125 square yard building site. The Snake River was diverted to its new channel on 19 September 1943. A bridge across the new channel of the river was completed on 24 September 1943. Pilings for the foundations of the Birchwood hangar were then driven and every effort made to prepare foundation forms so that all concrete work could be finished prior to the freeze-up, which was expected about 20 October 1943.

The housing and administrative buildings, begun 16 September and constructed entirely by soldier labor, progressed with exceptional speed. By 1 December 1943 The exteriors of all buildings were finished and the interiors of all buildings except three "H" barracks were from ninety to ninety-eight per cent completed on that date. In all, the building construction included six "H" barracks to house approximately 1,000 officers and men, an officer's mess, two enlisted men's halls of 256-man capacity each, crew chief building, Post Exchange and recreation building, supply building, terminal building, base headquarters building, and utility building.

The installation of utilities was tedious. Much of the work was outside, in frozen ground and during sub-zero temperatures. All underground work was preceded by thawing with steam thawpoints. All type of supplies and materials arrived with shortages of needed items, necessitating shipment by air from various supply points with resultant delays.

The actual building construction up to 1 December 1943 was done by soldier labor in a total of 47,032 man hours. The amount of construction completed by soldier labor in the approximately 75 day period from 16 September through 30 November constituted a distinctly notable performance.

Upon completion of the earthworks at Marks Field,<sup>10</sup> the heavy equipment of the 32<sup>nd</sup> Engineers Company was assigned to the task of providing parking area and a suitable site for a Kodiak type "T" hangar adjacent to the Moonlight Springs landing field. This task was completed on 1 November and the construction of footings and sills commenced at once. Cement work progressed steadily despite the low temperature. All forms had to be pre-heated while concrete was poured, and afterwards until it was thoroughly set. The Sommers Construction Company contracted to complete the "T" hangar and two warehouses at the ATC Marks field area.

The third phase included the construction of housing and administrative buildings for post headquarters and headquarters personnel in a new area at the southeastern end of the Moonlight

Springs landing field. Much of the construction was done with materials obtained from dismantled buildings in vacated areas. New buildings included an enlisted men's service club, non-commissioned officers club, Signal office, and warehouse, plus "T'd" Quonsets for enlisted men's quarters and "T'd" Yakutat huts for officer quarters, and necessary messing and sanitary buildings. A local water system was developed with a well as the source of supply, eliminating the hauling of water from Moonlight Springs. To reduce the ever-present fire hazard, a steam heating system was installed, with the boiler house detached from all other buildings. A water borne sewage system was installed and proved to be practicable in the tailings area, which represent thawed ground.

Quonset huts built during the fall and winter of 1942-43 were on top of the frozen ground and were cold and uncomfortable when high winds were blowing. This was remedied during the summer of 1943 by placing them in "Ts" with the floors of the huts 18 inches below the level of tailings, and sand piled up the sides an additional two feet. This provided protection from the wind and a much needed air space under the floors. In addition, the prefabricated floor of every hut was sealed, and a tongue and groove floor laid on top. Extra Quonset bulkheads not needed as a result of the "T" design were used on the outside ends, making an eight feet long storm entrance.

An important part of phase three construction was the completion of three major projects in the Nome area by the Alaska Communication system. The first and second ACS projects consisted of additions to the post telephone and cable system, including the installation of approximately 75,000 feet of aerial cable, a new 300-line three-position switchboard, a new two-position switchboard, several antenna systems, with associated ground net works at the ACS-AACS remote receiver site, 5,000 feet of aerial control cable between the receiver and transmitter sites and AACS control and medium and high frequency airport control equipment at the AACS control and tower.

The third ACS project involved the expansion of ACS transmitter, receiver and standby facilities. Several new transmitters were installed. New transmitting antennas were constructed including special types beamed on Anchorage, Fairbanks, Adak, and Yakutsk. An emergency power plant was built housing two 50 KVA diesel power units. New receiving facilities included the construction of a combination ACS-AACS remote receiver building, antenna ground systems with special directional type receiving antenna on Anchorage, Fairbanks, Adak, and Yakutsk, and the installation of new high speed equipment to handle traffic up to 200 words per minute.

During the first part of 1944 construction continued to hold a high priority at the Nome Garrison. The main categories at this time were: (1) Completion of ATC plans "B" and "C" and the start of work on ATC plan "D", (2) Consolidation and relocation of post storage, maintenance, and housing facilities, and the dismantling of structures in areas no longer being used, and (3) Improvements and additions to Signal installations.

ATC Plans "B" and "C": Construction on these projects was ninety-five per cent complete by 31 May 1944. All items authorized were finished on this date with the exception of the concrete floor of the 200' x 202' Birchwood hangar at Marks field, the construction of the second Kodiak "T" hangar at Moonlight Springs field, approximately five per cent of the interior furnishing of the enlisted men's four "H" barracks at Marks field, the construction of five 15' x 48' garages in the ATC area, construction of a ten-bed dispensary, and a small addition to the Air Base powerhouse.

Completion of the above items is being delayed by a lack of materials scheduled to arrive by ship in June 1944, except in the case of the floor of the Birchwood Hangar with essential utilities was

finished on 5 May 1944 and occupied by Air Corps troops. It was considered impracticable to pour concrete floor prior to thawing of subgrade in order to forestall any subsequent settling or buckling of the floor. Tests showed that ice layers were present to a depth of ten or twelve feet. Thawing operations will be continued until about 27 June, and it is estimated that the floor will be poured by about 10 July 1944.

The site for the second Kodiak "T" hangar at the Moonlight Springs field has been given a finished grade, and construction will start with the arrival of materials. Completion is scheduled for next August (1944).

The electrical distribution under plans "B" and "C" was fully completed during the period. While the water distribution system, using the Snake river as the source of supply, was in operation on a temporary basis, it was undergoing extensions and modifications due to be finished in July.

ATC Plan "D": Construction authorized<sup>11</sup> under Plan "D", but not started, includes the following: Quartermaster gasoline station with 12,000 gallons storage capacity, a drill and assembly hall in the Marks field area, Post Exchange warehouse, an extension to the authorized ten-bed dispensary, a 66' x 105' guest house, and a utilities building.

Also authorized are extensive grading and drainage on both shoulder of the [PAGE HAND NUMBERED 14 AT BOTTOM IS MISSING]. Foundations in the Quartermaster area. Concrete floors were poured for eight of the Cowins and for a centrally located boiler house yet to be constructed. Relocation was accomplished in order to simplify Quartermaster warehousing and distribution operations during the winter months. In past winters dispersed warehousing has created a severe transportation and road clearing burden because of the heavy snowfall in this region. The relocated warehouses will make available for Quartermaster functions sufficient centrally located and easily accessible storage space to warehouse supplies for the five-month period when the post is annually snowbound. This will eliminate one of the most difficult of the Quartermaster problems.

The central steam plant planned for the new storage area, to be installed as soon as necessary equipment arrives, will provide safe, warm storage for essential Quartermaster supplies requiring above freezing temperatures.

NEW HOUSING AREA: Authority has been requested<sup>12</sup> from the Alaskan Department for the construction of a new garrison housing area during the coming summer (1944) to accommodate 650 men. The proposal was submitted in view of the reduced strength scheduled for the next twelve months and the fact that numerous buildings erected on the tundra in 1942 require reconstruction because of wrenching and twisting of the structures.

The proposed relocation consolidates Infantry and Engineer units in an accessible area equidistant between the present headquarters (post) area and the Utilities-Quartermaster area. The proposed site is on tailings and offers the advantages of year-round water supply, eliminating the need for hauling water in the winter months, waterborne sewage which cannot be installed in existing housing areas, a central steam heating system with consequent reduction in fire hazards and in fuel consumption. The more central location proposed should lead to a substantial reduction in motor transportation during the coming year.

If approval is obtained, CCC-type buildings in vacated areas will be dismantled and re-erected to provide the necessary materials for the new housing. Construction of this project will be coordinated with present approved construction. Except for the installation of utilities, no new materials or non-military labor will be required.

Substantial stocks of materials are available from dismantled buildings. In the former Marks field housing area alone 1,040 linear feet of CCC-type buildings were taken down and stock piled during the period, together with 500 linear feet of 4' wide covered walkways, two Cowin warehouses, and one 30' x 80' second echelon motor repair shop. Nine Yakutat huts and 16 Quonsets also were removed from this area.

**ADDITIONAL AUTHORIZED CONSTRUCTION:** Additional construction approved by the Alaskan Department but not yet completed (May 1944) includes the following: One gymnasium, 94' x 168', to be built in the new garrison housing area, conversion of a 20' x 100' building to provide a new non-commissioned officer's club, erection of two bolted steel fuel oil storage tanks (capacity 10,000 each), construction of a 20' x 30' addition to the present service club to provide a radio broadcasting station on the post for Army-operated Station WXLN, construction of the Commanding General's quarters, a 20' x 120' reclamation shop, a 60' x 119' Ordinance overhaul shop, and a 30' x 60' addition to the present post officer's club.

Work was begun on the conversion of a 20' x 120' CCC-type building into a women's dormitory to be situated in the Post headquarters area to provide quarters for civilian women employees. This building was virtually completed on 31 May 1944 except for the finishing of utilities installation, which was delayed pending the arrival of cement.

Other construction approved for the summer months includes the relocation of ten Cowin warehouses, now dispersed, in a central storage area near Marks field.

**ROAD RELOCATION:** Immediately after the spring thaw, work was begun on construction of a new road<sup>13</sup> to by-pass Marks field in such a manner as to allow construction of shoulders along the North-South runway. This route involved construction of a new strip approximately 7000' in length and 30' in width, including the installation of two bridges and a fill across the tundra to a depth of three feet. This work was virtually completed by the end of May. Approximate tonnage moved totaled 131,000 cubic yards.

**UTILITIES:** During the period 1 January to 31 May 1944, the following utilities construction was completed:<sup>14</sup> One 36' x 60' Cowin warehouse was erected with a 24' x 60' lean-to and concrete floor through, for occupancy by the Post Engineer Motor Shop. One obsolete 85,000 gallon wooden oil storage tank in the utilities was disconnected from the power plant and removed, and the area graded to provide better access to the vicinity. One 10' x 10' emergency freezing unit was constructed for the freezing of ice for the hospital. Approximately 1,100' of primary 3-phase electrical wiring was installed to replace defective wiring and wire of insufficient capacity connect to the post laundry, cold storage plant, and the ordnance motor repair shop. A new pump house was built at Moonlight Springs station, which provides approximately 50 per cent of the post water supply. Pumping equipment was converted from manual operation to an automatic pressure system. Approximately three miles of narrow gauge railroad was rebuilt and repaired. This included the reballasting of the entire roadbed, straightening and replacement of rails, and the substitution of new ties for damaged one. Two automotive railroad "locomotives" were completely rebuilt from chassis.

COMMUNICATIONS EXPANSION: Three major projects started before 1 February were completed by the end of May 1944. These were:

ACS Project B-113-E1. This project provides for an MF Airport Control transmitter and has been completed by AACS personnel. The project consisted of the installation of BC 329 Airport Control Transmitter with antenna ground system and control equipment.

ACS Project C-50-D. This provides switchboard facilities for the ATC area, consisting of the installation of a two-board, 200-line American and Electric Switchboard. It was completed by ACS personnel 1 May 1944. The installation of temporary telephones on field circuits until such time as permanent cable was available was also included in this project.

ACS Project Q-21. This provides an oscillatory range control system at the Airport control at Nome and was completed 1 May 1944. The material for this project was turned over to the AACS which completed the installation.

During the same period on authorization by Headquarters Alaskan Department, a post photograph laboratory was established under the direction of the Post Signal Officer. Although a large portion of the equipment requisitioned has not yet arrived, the laboratory is operating efficiently with the equipment on hand.

Signal projects which have been approved and on which work has started include the following:<sup>15</sup>

ACS Project F-59. This provides for MF Photographic Radio Teletype terminal equipment for the Nome-Anchorage circuit. Installation of the terminal equipment was begun 15 March 1944. The equipment is now under test with Anchorage.

ACS Project F-59B. This provides for MF Radio Teletype Terminal equipment for the Nome-Galena-Fairbanks circuit. Material for the installation of this project has been received.

ACS Project C-to-E. This provides for the permanent installation of the outside cable point in the new ATC area with temporary use of a two-post, 200-line American Electric Switchboard. This project was 60 per cent completed on 31 May 1944.

The following projects have been authorized and are now pending:

ACS Project M-1-B. This will provide for antenna and power installation at the present F.C.C. direction finding station. Field engineering has been completed but actual installation has not been started.

ACS Project B-113-D. This will provide an AACS direction finding station, SCR-291-A at Nome, but has not been started as the project requires field engineering. Material for the project has arrived.

On 31 January 1944, thirty months after its establishment, the Nome garrison was in a semi-stabilized position, with the tactical urgencies of 1942 and 1943 supplanted by the more routine but equally important task of defending supplying the Russian Ferrying operations and assisting in their continued expansion. On this date the strength of the post was 1,845 officers and enlisted men, consisting of the following organizations:

Ground and Service Forces	1055
Air Corps	555
Russians	39
Resident Engineer	196
Total	1845

The strength was scheduled to be augmented by an additional 300 to 400 ATC personnel during the early months of 1944. As constituted, the garrison was generally adequate for all requirements.

Physically, the garrison was solidly established. All authorized major construction was completed or due to be finished by 15 April 1944.<sup>16</sup> Housing, messing, sanitary and supply installations were more than sufficient for all available personnel and for the accommodation on short notice of an additional 1,500 officers and men.

Post strength remained relatively constant, with ground and service forces personnel totaling 33 officers and 902 enlisted men on 31 May 1944, and ATC personnel of 49 officers and 673 enlisted men, a combined total of 102 officers and 1,575 enlisted men.<sup>17</sup>

**PLANS FOR RUSSIA:** From approximately the time of the arrival of the air-borne reinforcements at Nome, in June and July 1942, the energies of the garrison have been devoted mainly to expediting the flow of American planes to the Russian government.

Tactical activities have had a primary purpose the defense of the two airfields, Marks and Moonlight Springs, whose chief function to date has been as a link in the ferrying of U.S. fighter, bomber, and transport planes to the Russian battle fronts. Virtually every non-tactical activity of the garrison has been aimed directly or indirectly at improving the housing, communications, supply and maintenance facilities so necessary to the success of the Russian Ferrying operations.

The garrison's first official contact with the Russian military personnel came on 14 August 1942, when the initial Russian party stopped at Nome en route to Fairbanks to organize its ferrying program under Lend-Lease agreements.

At that time no provision had been made for interpreters. In anticipation of the language difficulties that seemed certain to develop, Lt. Krolicki established the Russian-American Bureau at Marks field to serve both the official and non-official needs of the Russians.

From its inception the Bureau provided the visitors with a variety of small and large services that added to their comfort and aided them greatly in moving planes through Nome to Siberia. In addition to all interpreting in connection with plane movements, weather information, billeting and clearances, the Bureau prepared a daily world news bulletin in Russian, maintained a situation map, taught an English class, translated movies, aided the Russians in shipping, provided them with reading materials to their taste, and arranged social engagements. The Commanding General invited the Russians to all post officer's social affairs and arranged for them various formal and informal social functions.

At first the Russians were cool and distant, but their attitude changed quickly. Almost from the beginning Russian and American personnel have cooperated freely and effectively in the ferrying of planes to the Soviet Union.

The first planes for Russia, twelve A-20s, arrived at Nome for refueling on 29 September 1942; and since that time a steadily increasing number of planes have passed through Nome en route to Siberia. Altogether 2,471 tactical planes were delivered to Soviet Russia by way of Nome in the period from 29 September 1942 to 31 December 1943. In addition, there have been hundreds of landings and take-offs by American-built transport planes used by the Russians in connection with their operations.

At the time the Russians first began using Marks field (1942) the runways were mud soaked much of the time in the wet summer months, coated with ice in the late fall, and covered with snow in winter. Snow removal equipment was late in arriving and proved to be too small and too limited for the heavy snows the 1942-43 winter. Despite these conditions, the runways were kept in a reasonably safe and serviceable condition at all times, mainly through manpower and the ingenious improvisation of available equipment.

Glaciation was an additional complication. On one occasion the entire North-South runway was threatened by the glaciating of Center Creek. In one of the most severe blizzards of the winter, 500 men removed this threat by digging a trench in solid ice to drain the overflow away from the landing field.

During the first winter of ferrying operations no hangars were available at the Nome fields, and only canvas nose hangars were in use. It was a common occurrence to see Russian and American mechanics servicing and repairing planes in sub-zero weather with almost no protection from the elements. They also worked under the added handicap of insufficient spare parts. The Air Corps mechanical personnel did a remarkable job of preparing the Lend-Lease planes for their last take-off on the North American continent.

The picture at the present time (May 1944) presents an entirely different outlook. Instead of only one airfield there are now two. The Moonlight Springs field received its first Russian planes on 12 June 1943, and for the rest of the year was used regularly while Marks field was being surfaced with asphaltic concrete. Now that both fields have been equipped with night lights, operations towers and greatly expanded parking areas, the Russians have ample landing and parking space.

As many as 175 Russian planes have been parked on the two fields at one time, with plenty of space to spare. There are now (May 1944) two T-hangars at Marks field, a Birchwood hangar nearing completion at Marks field, and a nearly finished T-hangar at Moonlight Springs. Excellent shop with ample equipment, large stocks of spare parts, and comfortable living and recreation quarter for American and Russian air forces personnel are now available.

The following is a summary of the movement of planes to Siberia via Nome for the period September 1942 to May 1944 inclusive. Of this total a small number was non-stop: C-47s - 970, A-20s - 1171, P-39s - 2132, P-40s - 48, B-25s - 364, and P-47s - 3 for a total of 4688 planes.

**POST AND OUTPOST SUPPLY (January to May 1944)**<sup>18</sup> Despite the fact that Nome is an ice-bound port, no critical supply problems were encountered during the winter of 1943-44. Adequate stocks of all essential supplies were available for issue at all time.

The most serious supply problem arose from the dispersion of fifty-six Quartermaster warehouses over an area of approximately nineteen square miles. This was largely solved in May with the consolidation of seventeen Cowin warehouses in a single accessible location. In the past, during periods of heavy snow and extreme cold, it was exceedingly difficult to make issues for the entire garrison, since many warehouses in the outlying areas could be reached only by bulldozing out an approach road to them every time it was necessary to withdraw any stores. Even after consolidating the supplies from the outlying warehouses at the issue warehouses, it was very difficult to distribute the issue to the using units, because of the distance separating the units and the snow blocking the roads.



All Class I and II supplies are now consolidated in the new Cowin warehouse area, thereby making the issue problem much simpler, and enabling the reduced personnel of the Quartermaster Detachment to handle issues more easily. [hand written note "balance of report not copied - not pertinent to construction"]

## **Appendix B**

### **The Loss of the “Forlorn Turkey”**

The Loss of the “Forlorn Turkey” is reprinted from World in Peril, The Origin, Mission & Scientific Findings of the 46th/72nd Reconnaissance Squadron (Reference 11) with grateful thanks to it's author Ken White.

## Chapter 22

### The Loss of "The Forlorn Turkey"

On the evening of 23 December 1947, "The Forlorn Turkey", an F-13 from the 72nd Recon Squadron, winged its way south from the Eskimo village of Kotzebue to Nome, considerably off course on its return to Ladd Field from a mission, and already overdue. Lieutenant Don Duesler, the copilot, asked the pilot, Lt. Vern Arnett if he was getting sleepy. "No," replied Arnett, who although without sleep for over 24 hours indicated that the copilot didn't have to spell him. Radar was inoperative. Sergeant Decker, one of the scanners, reported over the interphone that the plane was flying lower than the mountaintops which were ten or fifteen miles out to the left of the aircraft. Arnett's answer was, "We know." Approaching Hot Springs Mountain, suddenly Sergeant Decker yelled over the interphone that the ground was coming up fast. Lieutenant Duesler grabbed the wheel and pulled it back with all the strength he could muster. Just as the nose of the aircraft started up, the tail hit the snow-covered slope and broke off. Instantaneously, the rest of the plane smacked into the mountainside with a terrific crash; the forward section rotated to the right with the right wingtip coming to rest on the tail section. Then the plane caught fire.

Having struck the mountainside at 220-plus indicated airspeed, the propeller anti-icing tank, containing mostly alcohol and water, exploded in the aft section of the fuselage, spewing the mixture on Sgt. Decker's hair and face and was quickly ignited. The noise of breaking and twisting metal and the excruciating pain caused Sergeant Decker to black out. 1st Lt. Lyle Larson had just crawled through the "tunnel" to have the scanners sign the form one, and was standing up using the urinal at the moment of impact. He immediately went through the floor panels and broke his ankle when he hit the ground. After what seemed like several minutes of deafening noise, there was a dead silence. Wilbur Decker couldn't believe he was alive.

A hole just large enough to crawl through was punctured through the right hand side of the fuselage just behind the right scanner's position. Staff Sergeant Warren had been in that position when the plane hit the ground. Having been ejected from the plane, Lt. Larson was the first crewmember outside the airplane and farthest from the burning wreckage. Sergeant Warren had apparently made it out safely. Sergeant Decker was the last one out of the rear. The first thing Sergeant Decker did once outside was to heave his guts out. The smell of his sizzling hair and flesh and the sudden cold had put him into shock. He had lost his hat to the flames.

It was funny, Decker later thought, that no one had thought to get the A-3 personal clothing bags out of the rear crew compartment. He saw Lieutenant Arnett throw parachute harnesses for the chest pack and two one-gallon water jugs out of the plane. Arnett emptied water out of one jug and filled it with gasoline, which was spouting from a wing fuel hose. Lieutenant Arnett then looked at Sergeant Decker and said, "Where's your hat?" Decker told him he lost it. Arnett immediately ripped apart a pair of flying trousers and wrapped it around Decker's head and face, where they soon froze to the left side of Decker's face because of the blisters from the bums. Sergeant Decker said, "Sir, we have had it." Lieutenant Arnett replied, "No way. We will live in Florida someday."

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Afraid the plane would blow up, the crewmembers walked about 200 yards down the slope and huddled around one of the three engines that had broken off the wings during the crash. Decker shivered and shook so much his teeth were chattering. No one got any sleep. In fact, Sergeant Decker's injuries were such that he wouldn't get any sleep for days and nights to come.

Meanwhile, back at Ladd Field, it became obvious to personnel surveying fuel reserve figures that "The Forlorn Turkey" was down somewhere, but no one knew where that might be. When notified, General Atkinson, among others, thought that the Russians might have shot the plane down. In the event, however, that "The Forlorn Turkey" had crashed in Alaska, word was immediately passed to 10th Rescue, the Alaskan Air Command Rescue Service, which quickly began conducting a radio search, contacting all bases and stations in the Alaskan Theater of Operations and all bush airlines offices, but with negative results. At this time Strategic Air Command Headquarters was notified by Major White that a F-13 aircraft had failed to return from an operational mission, that no radio contact had been received from the crew since their departure, and that search and rescue efforts were commencing.

At this time of the year there are only about six hours of daylight and twilight combined; that is, if the weather is clear and visibility unlimited (CAVU); otherwise daylight could be as short as four hours or less.

The next several hours were spent analyzing The Forlorn Turkey's flight plan, preflighting search aircraft, organizing the search effort, and briefing crews in preparation for the search to be conducted over their respective search areas at first light the following morning on December 24th, Christmas Eve. The most logical search area was determined to be from Point Barrow on Alaska's north coast to Nome on the west coast, starting along the shorelines and working inland by sectors, an aircraft assigned to each.

On Day 2, December 24th, 1947, at the wreck site, the airplane had finally stopped burning. Only the unpressurized tail section, No. 4 engine, and the outer wing sections were left, though blackened, in the soot-covered ice and snow. Lieutenants Arnett, Sheetz and Schaack punctured holes in the empennage and fastened the unburned wing covers to ward off some of the drafty winds. A metal pail was found and used to burn parachute pieces that were soaked in oil and gasoline. Lt. Sheetz and Lt. Arnett had some area maps and were considering walking for help. The situation looked grim for the injured crewmembers, and with the poor weather, no plane could locate the crew even if it flew within 50 feet overhead. Walking out for help seemed like the right thing to do. Sheetz and Arnett were in very good physical condition. Perhaps because they were, the crew had survived so far.

Day 3 at the wreck, December 25th, 1947, was a real disheartening Christmas. Convinced that walking out was the only way to get help, Lieutenants Sheetz and Arnett obtained a supply of K-rations that were stored in the tail section, dressed well for the cold, and trudged away from the remaining crewmembers to get help. They had figured that the crash site was 21 miles from the village of Shishmaref and that they could get there in two days. It was an impossible walking distance under the circumstances. The terrain was all up and down many hills above the tree line,

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so there was no wood to burn for heat or smoke for signaling rescue people. The snow was knee-deep with a crust on top. When walking, the crust would hold your weight in some places and break through in others. It could wear a person out quickly.

Despite his injuries, Sergeant Decker began to come out of shock by this time, and "survival" began to make sense to him. He put on a pair of heavy socks and "bunny boots" and it made a difference. He began walking around looking for things to burn for heat. Soon he located some rubber hoses that had come off of the engines during impact, as well as deicer boots that came off the leading edges of the outer wings and horizontal stabilizers. He then discovered some 10 weight oil in the No. 4 engine (the only one that didn't break off), but the oil was like molasses. He also located some gasoline in the APU (Auxiliary Power Unit). Flames had licked all around the rubberized protective coating, but had only melted and blistered it. It seemed they had just barely enough survival items to keep them alive. Sergeant Decker was not the only one who prayed to God often.

The remaining crewmembers, particularly Sergeant Decker, had a hard time breathing in the cold, sub-freezing air. They got as close to the firepail as they could, though it belched black smoke. Decker found that he had trouble swallowing, and no desire to eat. All he wanted was to drink hot liquids.

Day 4, December 26th brought little hope to the crash survivors. The snow had stopped coming down. It had been said, and Sergeant Decker believed it, that snow is the quiet thief of the north. The temperature dropped very low. For a couple of days, Decker had thought he saw airplanes coming toward the crash site, then he heard and saw for sure two very beautiful P-51 fighters. That plane would always be Decker's favorite from that day on. All the crewmembers waved and shouted with glee. Soon after, the sky cleared and a full moon shown brightly on the snow. An airplane circled overhead.

Back at Ladd Field, sixty-eight hours had passed since "The Forlorn Turkey" was determined to be out of fuel and down, before the squadron received a search aircraft's radio message that the wreckage of the lost plane had been sighted on the east slope of Hot Springs Mountain on the Seward Peninsula about 65 miles east of Shishmaref, 50 miles below the Arctic Circle and 120 miles north of Nome. The search aircraft flew low enough over the crashed F-13 to see that there were survivors. Three men suddenly appeared from the tail section of the wreckage. Two of the men went back into the tail section and carried out a fourth person they laid on the snow. They then picked up the injured man and all went back into the tail section.

The search aircraft determined that the air temperature at the crash site was approximately minus 40 degrees Fahrenheit with wind blowing between 40 and 50 MPH, creating a wind chill of approximately 115 degrees below zero.

The search aircraft had dropped a hand-cranked radio, but in their condition, the survivors found it was too tiring an ordeal to operate it and generate a message. Many other articles had been parachuted but landed too far from the wreck to find and retrieve. Finally, survival equipment was thrown from the search aircraft without parachutes, which landed nearby. The sleeping bags were

## World in Peril, The Loss of "The Forlorn Turkey"

most appreciated. The "Bear Paws" for walking in deep snow made excellent firewood. No one was about to walk anywhere with rescue at hand.

Lieutenant Larson was the only crewmember who had attended the Ice/Sea survival training at Nome, but he did very little moving due to his broken ankle. Lieutenant Shaack was the morale officer, and he had his work cut out for him.

Following receipt of the information from the search aircraft that the wreckage of "The Forlorn Turkey" had been located, Brigadier General Frank R Everest, Commanding General of the Yukon Sector at Ladd Field, and Major White, Commander of the 72nd Recon Squadron, decided to fly the general's B-17 aircraft to Marks Air Force Base at Nome from where they would conduct the rescue of the downed crew.

It was decided to have Master Sergeant London (who had previously made a parachute jump in the Antarctic); Corporal Casey, a paramedic, and Captain Aiken Mays, Nome Air Base doctor, outfitted and briefed in case it was decided to parachute them into the site of the crash to assist the injured crewmembers, thought to be as many as five in number.

Enroute from Ladd AFB to Marks AFB, General Everest and Major White discussed the pros and cons of jumping the three paramedics into the crash site and decided it should be done. It may be the only chance the injured crewmembers had. The question was when. Should it be done at seven or eight o'clock that evening, or at ten o'clock the next morning? Considering the fact that the crew had been exposed to the elements for three days already, with chill factors approaching minus 115 degrees Fahrenheit, the sooner the better. It was decided to make the drop into the crash site as soon as possible after the arrival of the B-17 at Marks AFB and the drop could be organized.

When on the ground at Marks AFB, with the B-17 being serviced and the paramedics being outfitted at base operations under the direct supervision of M/Sgt. London, General Everest turned to Major White and said, "Major, you look like death warmed over. When did you last get some sleep?" The major replied that it had been a little over four days ago. The general suggested that the major get something to eat, then check in at the Bachelor Officer's Quarters and get some rest. The general said, "I will take the flight out to the crash site and drop the three paramedics. When I get back from the flight, I'll wake you up and let you know how things went."

Later on that night, General Everest woke the major up and told him what a horrible night it had been. He had jumped the three paramedics into the crash site, but there were strong surface winds and he wasn't sure if any of them ever got to the wreckage. The general was terribly distraught.

On the morning of December 27th, General Everest and Major White decided to have 10th Rescue load a glider with food, blankets, fuel, warm clothing, communications equipment, medical supplies including stretchers, and land the glider beside "The Forlorn Turkey". The two officers decided that Major White would man the Airborne Command Post (in the nose of the B-17) and General Everest would stay at base operations at Marks AFB so the two of them could stay in touch during the rescue operations.

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The B-17 got off the ground before sunrise and an hour ahead of the C-47 towing the glider. The glider had on board equipment to set up the poles and tow rope that would enable the C-47 to snatch the glider off the side of the mountain after they had loaded aboard the F-13 crew. Before arriving over the crash site, and still in darkness, the B-17 carrying Major White was notified by General Everest that the C-47 with glider in tow was airborne.

At first light, the B-17 was starting to make low passes over the crash site to determine the best spot to set the glider down near the crash site, when the major heard a radio transmission stating, "BROTHER, WE'RE IN TROUBLE!" The major asked who was calling. The glider pilot responded by saying that his tow plane had just lost its left engine. The major then called the tow plane and asked him what happened. He responded by saying that his left engine had stopped running for no apparent reason, but he was able to start it again and it seemed to be running all right now.

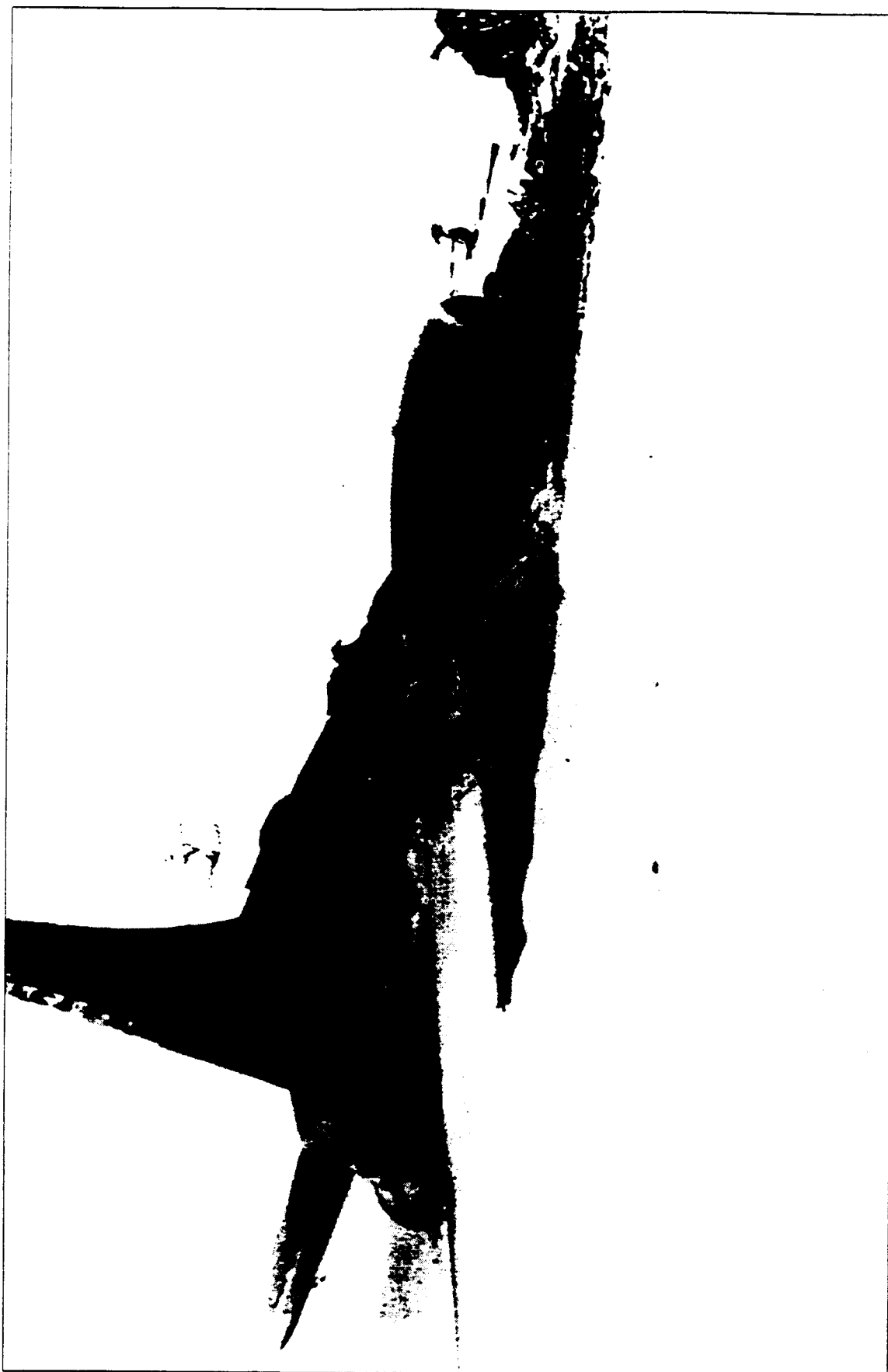
About one minute later, there came another transmission stating, "BROTHER, WE'RE IN TROUBLE," at a much higher pitch and volume. Major White asked the glider pilot what the problem was now. He responded saying that the tow plane had lost the right engine this time. Major White again called the tow plane pilot asking him what happened. This time he responded by saying that the right engine had stopped running for some unknown reason and he was still trying to restart it. Following immediately was his comment that it was now running again and appeared to be OK.

Shortly thereafter, there was another transmission even louder and higher in pitch saying, "BROTHER, WE'RE REALLY IN TROUBLE NOW!! I'M CUTTING LOOSE." The tow pilot responded by saying, "Hang on! I can see a break in the undercast ahead. When I get down through it, I can pinpoint our location." Major White called the tow pilot and asked what happened, and was told that he had lost both engines at the same time and was unable to get either one started again but was still trying. At that time the tow aircraft with glider still attached were below the layer of clouds with clear visibility of the surface below. The tow pilot transmitted that he was over Imruk Basin.

At that call, Major White told the B-17 pilot to head for Imruk Basin as fast as possible. The tow pilot told the glider to cut loose whenever he wanted to so the C-47 could glide down and make a deadstick, wheels-up landing on the lake. He also told the glider pilot to land as close as possible to the tow plane. Major White called General Everest at Marks AFB operations and asked if the general had heard that the tow plane had lost both engines and was in the process of making a wheels-up landing on the ice of Imruk Basin. The general acknowledged that he had and was in the process of readying another C-47 rescue tow plane that should be enroute within an hour.

Major White called the glider pilot and asked how many tow cables he had aboard the glider. The response was that there were two. So Major White told the glider crew to set up their poles and cable immediately after landing so that another C-47 tow plane could snatch them off the ice and take them to the crash site to land next to the crashed F-13.

The B-17 control plane circled over Imruk Basin awaiting the arrival of the second C-47 when Major White received a call from General Everest stating that the second C-47 plowed into a snow bank in preparation for takeoff, so they were preparing a third rescue C-47 that would be airborne within an hour.





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The third tow plane was airborne shortly. The glider crew had their stakes in place and their pickup loop ready for the C-47's arrival. Shortly, the C-47 arrived, made one low pass and then went around to set up for a second approach to snatch the glider off the ice. When it was lined up, the C-47 made its low pass and snatched the nylon tow rope, which promptly snapped, jerking the glider only a few feet along the snow-covered ice.

The glider crew quickly strung up their second nylon tow cable and got back into the glider, preparing themselves for liftoff. This time, when the hook engaged the loop, the tension pulled out of the cable, but it too snapped. The tow pilot and glider pilot discussed the problem and reasoned that the ropes had gotten too cold and lost their elasticity. The tow aircraft had a warm tow rope on board which was dropped to the glider crew, but the effort turned out to be a repeat performance. They too had to be rescued by 10th Rescue sometime after that.

Major White touched base with General Everest to brief him on the Imruk Basin glider pick-up problem. Major White asked the general if they had a small airplane like a C-45 at Marks that they could load with supplies and fly up to the crash site and land wheels-up beside "The Forlorn Turkey". General Everest replied that he would check and call right back. In about five minutes the general called and said that they had a C-45 and it would be loaded and airborne within an hour.

With this news, Major White cancelled further effort at Imruk Basin for that day and the B-17 headed back to the F-13 crash site to circle and await the arrival of the C-45. On the way there, General Everest called again and said that the C-45 was taxiing out for takeoff. He stayed on the air and further reported that the C-45 was rolling down the runway, that he was airborne, that ... wait, he stalled and crashed at the end of the runway. The general said he would call back.

About thirty minutes later, the general called again and said that the C-45 was a total loss and the crew was taken to the hospital. The plane apparently was overloaded. It looked like there was at least one fatality. Major White responded by saying to the general that he'd seen enough for one day, to close down operations. The major would bring the B-17 back to Marks Air Force Base.

General Everest met the major when he came into base operations and the two of them went to the mess hall to get something to eat and discuss the plans for the following morning, December 28th, 1947. The general stated that he had some discussions with a couple of the local bush pilots who felt they could fly into the crash site and pick up the crewmembers and bring them out. The general went on to say that there were a lot of serious legal problems surrounding this approach that were difficult to discuss with anyone outside of the military, but he felt that the two bush pilots were going up to the crash site the following morning, weather permitting, to see what they could do or recommend.

The following morning, bush pilots William S. Munz of Munz Airline and Frank H. Whaley of Wien Alaska Airlines (both of Nome), their crewmembers and equipment were assembled at the municipal airport for a planned 9:00 AM takeoff. The weather was clear and calm. Ground temperature was an even minus thirty degrees Fahrenheit. For a ground crew, Munz took Dr. M. R. Kennedy and Bud Richter, the local photographer. In anticipation of making a landing some

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distance from the wreckage, Whaley had secured the services of Chuck O'Leary, a former Alaskan Scout in World War II. Chuck, an experienced dog musher took along a small Yukon sled and three dogs.

After a night in the warm hangar, Munz's Stinson started easily, but the engine in Whaley's plane refused to start although it had been well warmed up in advance. The sub-zero weather had so affected the storage battery that, although fully charged, its efficiency was depleted by more than half. There was nothing for Whaley to do but drive into town and pick up a warm battery. Rather than wait while both ships got cold, Munz and Whaley agreed that Munz would go on ahead, since his ship was slightly slower.

Exactly on schedule the fourteen-year-old Stinson began scooting ahead on the ice, faster and ever faster. Finally, with a couple of slaps at the frozen surface with the heel of the skis, she broke contact and for the next fifteen minutes battled gravity and turbulent air masses to attain a serviceable altitude. At five thousand feet the air became more stable, with only a moderate headwind directly on the nose.

The ever present temperature inversion, without which Arctic flying would be impossible during the winter months, had boosted the outside air temperature to an even zero - a rise of thirty degrees in one mile of altitude.

The weather report from the 72nd Recon Squadron F-13 flying weather station that remained over the crash site daily throughout daylight and twilight hours was much the same as on the previous day when Munz and Whaley had made a preliminary reconnoiter of the area, but improvements in visibility were forecast. The usual mile-thick blanket of fog and storm covered the entire northern half of the Seward Peninsula, as on former days. Above it, the weather was a delight for high-flying pilots only.

One hour and thirty minutes after the takeoff, the 3105 K.C. receiver in the CAA station at Nome sputtered and came to life.

"N.C. 13499 over the scene of the wreck. Will attempt a landing. Please stand by."

"Roger, Wilco," and then silence.

One quick circle, and the situation was clear to Munz at a glance. A strong wind was blowing at right angles to and over the top of the ridge, below which the wreckage was somewhat sheltered. The outside temperature was dropping rapidly, the visibility was not good, and the turbulence left much to be desired. Under such conditions the approach procedure is uniform, if not orthodox. The plane is leveled off as high as possible to prevent a sudden down current or lull from spilling the lift before recovery can be made. The ground speed is reduced to the barest minimum, and as much power as can be utilized is drawn from the power supply.

So efficiently was the landing made that the first touch down was made only a hundred yards from the wreck. Realizing that the slope was steep and rough, Munz continued to gun the plane until the distance had been doubled, and shut off the engine about four hundred feet from the summit of the

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ridge on less steep terrain. All hands turned to, to secure the wildly flapping, light canvas motor cover. Then a heavy wool blanket was draped over the front as added protection and immediately plastered there by the driving wind. The thermometer was steady at thirty-five below, and at times the wind would reach gusts close to fifty miles an hour.

At a shout, "Your face is freezing!" from Dr. Kennedy, Munz climbed into a heavy sheepskin parka and they both started down the hill toward the wreckage. Overhead at a few hundred feet, an F-13 cruised back and forth.

Surprisingly enough, during the short downhill journey to the wreck, no one had appeared to welcome the would-be rescuers. Munz soon learned why. The approach had been made at such a high altitude that the survivors had discounted any possibility of the landing up the mountain, and hadn't even bothered to look!

Rounding the end of what had once been the fuselage of "The Forlorn Turkey", Munz accosted a solitary individual from behind with the usual question under the circumstances, "Well, how is everything going?"

A startled airman, his reflexes dulled by days and nights of exposure, could only make soundless motions with his mouth for several seconds. Finally, still not believing his eyes, he managed to gasp, "Where did you come from?"

Munz explained that he had just made a landing a short distance away, whereupon the excited airman shouted, "We're saved, fellows!" and dived head-first into the tangle of human bodies under the windbreak of canvas.

As Kennedy and Richter arrived the survivors began to crawl out from under the shelter. They were a sorry sight. After almost six sleepless days and nights, they were blackened by fire, covered with a week's beard, and were chapped, burned and starved. There were three able-bodied men left of the original eight. Two had gone in search of help and never returned. Two were burned, one very badly about the face, and one had a fractured leg. Dr. Kennedy crawled into the space vacated by the active members, and administered such first aid as was possible under the circumstances.

In fifteen minutes the group began the trip up the hill to the plane. The man with the injured leg was supported by two others. The survivor with the lesser burns walked behind a front man, who acted as a windscreen. The one with the severe burns was unable to face the wind at all, and was forced to walk the entire distance backward, guided by Dr. Kennedy.

So strong was the wind that, even with help, the injured survivors had great difficulty negotiating the short distance to the plane. Even then, the trip was accomplished in fifteen minutes. Thirty minutes after landing, the plane was ready to leave.

The motor coverings were whipped off and shoved inside the plane. Well primed in advance, the motor caught instantly. Since any excess ground running tends to cool the engine further, Munz

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opened the throttle to full position and locked it. Meanwhile, all men available were tugging and shoving to ease the heavily loaded craft to the summit of the ridge.

At this juncture Whaley, who had just arrived, landed alongside and somewhat ahead, on the summit, to avoid the difficulty the first plane was experiencing. The addition of two more heavyweights to help push simplified matters somewhat, and soon the ship was moving at a steady pace. As it reached the summit and increased its speed, the outboard "power plants" let go, and Munz and his passengers were on their own. As the tired old Lycoming engine hammered away the plane began to get lighter, while the driving winds tore up the steep hillside almost at right angles to the lifting surfaces.

Finally the ship ballooned into the air with a ground speed of not more than fifteen miles per hour. Dropping the nose instantly, Munz dived the ship down the steep contour as sharply as possible without making contact with the ground. By the time his plane reached the valley floor, it had attained enough speed to pull out above the foggy-looking mass below and point her nose toward Nome.

After ten anxious minutes, as the altimeter slowly crawled up to five thousand feet, Munz throttled her down and looked the heatless winter sun squarely in the face. Over the top of the overcast, Munz could hardly believe that he was on the return trip.

During the following ten minutes while the radio was warming up, Munz got the missing information from the injured men, then carried on the following conversation:

"N.C. 13499 calling Nome Radio, over."

"Nome Radio to N.C. 13499, go ahead with your message."

"N.C. 13499 back to Nome Radio, off at eleven A.M. with four survivors, one with a fractured leg, two with burns, one serious, all suffering from exposure and shock. Paratroops never arrived at crash scene. Pilot and navigator left crash overland for Shishmaref, have not returned. Believed themselves to have crashed in the Ear Mountain area. Please request permission to land on Army Field."

"Nome Radio to N.C. 13499, Message received okay. Please stand by."

A short while later came the message, "Nome Radio to N.C. 13499, Message delivered, permission granted for landing at Marks AFB. Nome Radio out."

One hour after the takeoff the little plane clattered to a landing on the icy runway of Marks AFB, taxied up to operations entrance, and was practically swamped by men and officers, all intent on helping. Finally some semblance of order was restored, and four very happy men were loaded into a waiting ambulance and whisked away to the hospital.

About two hours after the first four survivors were taken by military ambulance from William Munz's aircraft to the Marks AFB medical facilities, Major White was given an opportunity to talk

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to the crewmembers and the doctor. The doctor was very concerned about Technical Sergeant Wilbur Decker, who had the burned, terribly swollen and frozen face. The doctor asked if Sgt. Decker had a family at Ladd Field and if he did, immediate arrangements should be made to have them brought to Marks AFB, because, the doctor thought, when Decker thawed out, in all probability he wouldn't survive the trauma.

Major White called the 72nd Recon at Ladd Field to learn that T/Sgt. Decker did indeed have a wife and two small children, a boy and girl, ages two years and three years old in Fairbanks. The major made arrangements for Mrs. Decker to be flown in the 72nd Squadron's C-54 to Marks AFB at Nome as soon as possible.

When Major White told the doctor what he had learned and what he had done, the doctor asked if it was possible to make a change in plans. Instead of bringing Mrs. Decker from the airplane to the hospital, it would be better to take Sgt. Decker and Lieutenant Larson (with the broken leg) from the hospital in an ambulance to meet the C-54, load them aboard and, accompanied by a doctor, fly them to the 183rd Hospital at Elmendorf Air Force Base at Anchorage. If this could be done, it would greatly improve Sgt. Decker's chances for survival. It was done.

Meanwhile, Frank Whaley had picked up the other two survivors, leaving his own ground crew at the crash site, which Munz returned to pick up yet that evening so they wouldn't have to endure needless hardships if the weather became worse. As Munz climbed out of Marks AFB on his second trip of the day, he saw concrete evidence of why the Air Force had decided not to attempt further landings that day. Sitting up on the frozen drifts of the high tundra boundary of the airfield was a ski-equipped C-45, its undercarriage washed out along with other damages. It had failed to get off, and it became clear, that had it not been for the bush pilots, the survivors would still have been at the wreck.

At two o'clock Munz made his second landing of the day at the scene of the wreck, stopping this time on the very summit of the ridge. Quickly, the three men and three dogs were loaded. Chuck O'Leary was elected to shake the plane loose, but after he did, he only managed to come about two-thirds the way into the airplane. Meanwhile the plane was climbing rapidly towards Nome. The door had closed on him, which led to a drafty condition in the cockpit, and Chuck complained that his feet were getting cold. While Chuck's feet were not excessively large, there didn't seem to be room for them inside so long as he continued to stand on his head among the dogs. Eventually he was pulled completely inside and the door was shut, and by getting his feet where his head had been, Chuck managed the rest of the trip with some degree of comfort.

An hour later the tiny ship came in to rest on the home airport having accomplished the impossible. Needless to say, the bush pilots and crews had every reason to be proud of their accomplishment, but would probably never know the far-reaching effects of their courageous and selfless actions in the lives of others.

The next day the C-54 brought the doctor back from Anchorage to Marks AFB and picked up the four crewmembers at the Marks AFB hospital and flew them back to Ladd Field's hospital. Those brought to Ladd from Nome were Lieutenant Donald B. Duesler, Lieutenant Francis J. Shaack,

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Staff Sergeant Leslie R. Warren and Sergeant Alan R. Samford. It was then that the detailed story of the missing crewmembers was made known.

The crashed F-13 pilot, Lt. Vern H. Arnett, and the navigator, Lt. Frederick E. Sheetz, had set out for the village of Shishmaref on foot on Christmas day. The possibility that they may have taken refuge in one of a half-dozen trapper's cabins and Eskimo shelters known to exist in that section was regarded as the last hope for survival of the pair. Pilot Frank Whaley, who with Munz participated in the earlier rescue of the six crewmen, was to fly from Kotzebue in a small ski-equipped plane to attempt landings beside these shelters.

Adding to the difficulty of the search for the two fliers, as General Everest pointed out to the news media, was the fact that the crew was amiss in its calculations as to the location of their crash site after they were on the ground. The survivors reported that the crew estimated its position at a point 38 miles southwest of the true location. It was the intention of Arnett and Sheetz to make their way a few miles north, follow a stream to Shishmaref Inlet, then trace the coastline to the village. From their actual starting point, though, any stream they encountered would lead not to Shishmaref Inlet but into Goodhope Bay on the opposite side of the peninsula.

The two men left the plane wearing arctic flying clothes with their feet and bodies wrapped in parachute cloth for extra protection. They carried sleeping bags, maps, pocket compasses, knives and K-rations for several days' travel.

No further word had been received at Ladd Field on the reported sighting of what was believed to be the bodies of the doctor and two paratroopers who leaped to the rescue after the plane wreckage was sighted. They would be officially listed as missing until the bodies were recovered.

"Fantastically inaccurate" aerial maps - the best available for current Air Force weather observation and navigation training missions in Alaska - were given partial blame for the December 23rd crash of "The Forlorn Turkey", according to Brigadier General Frank F. Everest, who stated that the search for the two officers from the F-13 and the three paratroopers would continue as long as "the slimmest hopes" remain for their survival.

Meanwhile, Bill Munz reasoned that since only six men had been rescued, the job was far from completed. Five men were still missing, and though there were many who held no hope for them, until they were actually found dead there was always the possibility they might still be alive.

Consequently, under similar weather conditions as the previous day, the search continued full blast. The F-13 weather aircraft was combing the crash site and surrounding areas. As Whaley was unable to assist on this day, Munz left early accompanied by Chuck O'Leary as observer. Shortly after they arrived in the search area, an object that both the Air Force and Munz had sighted the previous day was identified as one of the paratroopers. Landing a quarter of a mile from the wreck, the parachutist had scrambled up the hill to the rocky crest, which he may have thought to be the plane. Unable to locate the craft, he had returned to his chute and died there.

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The other two parachutists were not so easily found. It was possible to find where they had hit on their landings, and traces of trenches scooped out through the drifted snow where they had been dragged for miles over the tundra by high winds showed their courses. Doubtless they had been too badly injured to spill their chutes in the darkness and blizzard of the endless arctic night.

The previous day, Whaley and O'Leary had left five ten-gallon cases of gas on their makeshift landing strip, so while the F-13 watched from overhead, O'Leary and Munz salvaged the gas and flew forty-odd miles to the smooth ice of Goodhope Bay. There, taxiing under a bank, they got out of the wind to refuel.

At forty below, high octane gas spilled on the bare skin is exceedingly painful and will induce almost instant frostbite. To refuel safely it is necessary to wear heavy fur mittens, which slows the operation somewhat. Nevertheless it took the bush pilots half an hour at most to refuel, and they continued flying until it was too dark to see, then made most of their return flight to Nome after darkness had fallen.

As a result of that day's flying, it was decided to continue the search with ground forces. Accordingly, arrangements were made to have Frank Whaley and Chuck O'Leary, Sammy Mogg, their dogs, sleds and winter gear as close to the scene as possible so they could transport the frozen body of the paratrooper to a suitable landing field on a nearby lake, and assist in the search for the four men still missing.

Shortly thereafter an Air Force ski-equipped Norseman stationed at Ladd Field was flown to Marks AFB by the head of the Cold Weather Test Detachment, Colonel R. R. "Bearpaw" Stewart, carrying Captain Harrold Strong, the head of the 72nd Recon Squadron Arctic Survival Unit, who, complete with his dog team, sled and rations, was put in charge of the ground search for the four missing men. In addition to his own dog team and equipment, Capt. Strong soon had several Eskimo drivers and their teams from Shishmaref, Cape Espenberg and Deering to help him cover the entire area north of the wreck on the peninsula.

As the days stretched into weeks, the ground units doggedly continued the search until three of the four remaining bodies had been found. The aircraft commander, 1st Lt. Vern Arnett, and the navigator, 1st Lt. Frederick Sheetz were found frozen to death, evidently having become exhausted four miles from the plane, inward bound on their outbound trail. The second paratrooper was traced to a large indentation harboring a small, frozen lake, where he was covered with snow. The body of the last missing man, the doctor, wasn't located until the thaw the following spring. It was found by John Cross, an old-time bush pilot and retired Army Air Corps lieutenant colonel flying for Wien Airlines out of Kotzebue.

For a unit commander, there is no such thing as "case closed" on an aircraft accident, and Major White felt his responsibilities deeply. There would be accident investigation boards, countless analyses, refinements of procedures, and corrections made, if possible, to assure that the problem didn't repeat itself. Aerial charts would have to be revised, and survival procedures modified. Although the 46th/72nd had flown over a million miles on hundreds of missions under the most

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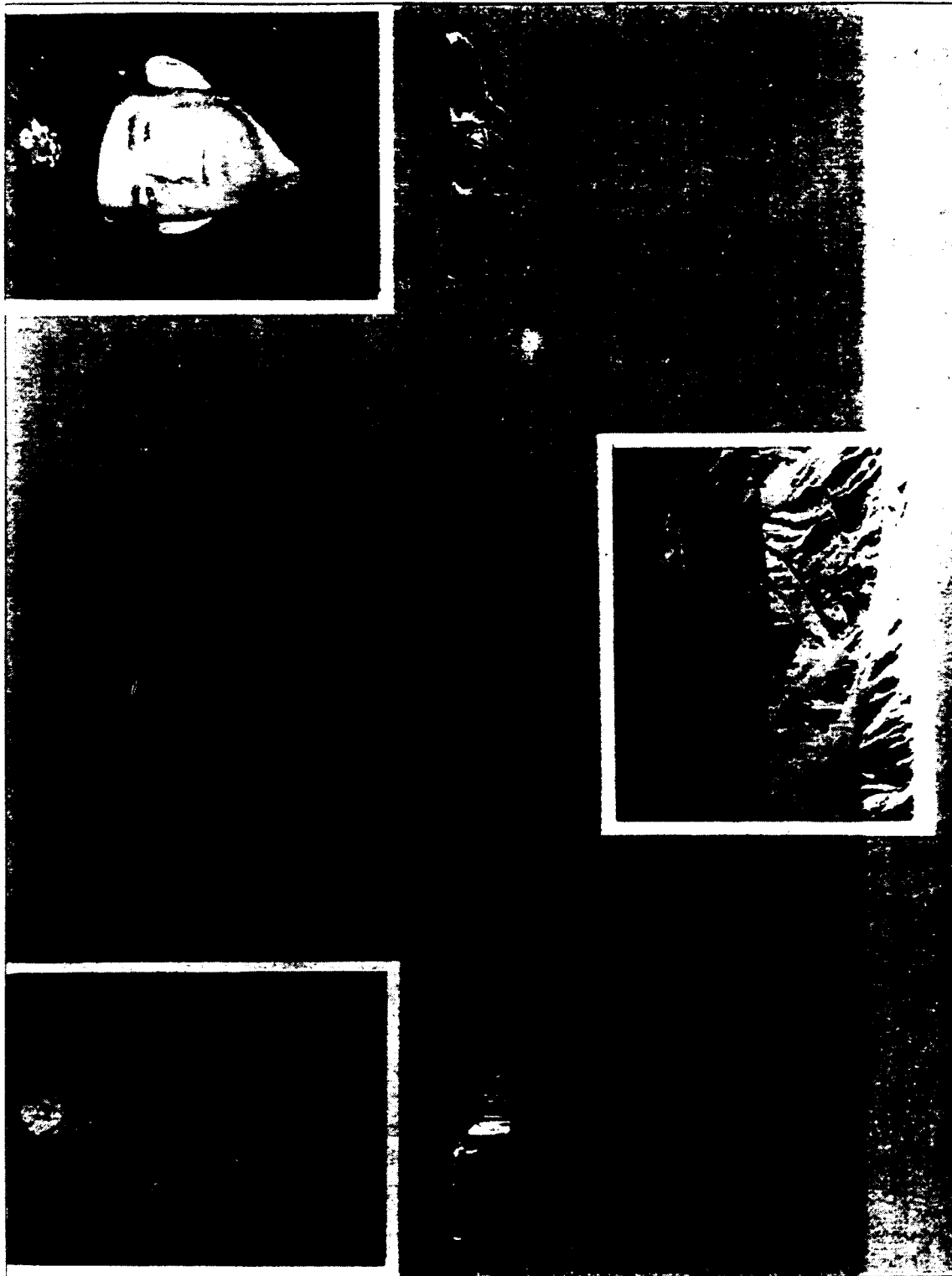
unfavorable circumstances, it was not enough to recall the old military maxim, that "in an operation of this size, you've got to expect losses."

It wasn't until Major White's next trip to SAC Headquarters that General Frederic Smith put the matter into perspective when he said, "Major, when your unit was deployed to Alaska, we expected you to lose half your airplanes and half your crews during the first six months; and we expected you to lose the other half of your planes and crews during the second six months. Here it is over a year and a half later and your unit has only lost four aircraft and five crewmembers. That is a fantastic accomplishment for your unit."

And it was.



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## Appendix C

### Personnel Recollections

These personal recollections appear in roughly chronological order. In alphabetical order they are:

- David J. Aul, 1952-53 page 27
- Ed Darrow, 1950-51 page 28
- Sam Gardner, 1948-49 page 24
- Ralph Graves, 1948-49 page 24
- William H. Greenhalgh, Jr., 1953-1957 page 35
- Paul D. Heckh, 1951-53 page 28
- Joel B. Krausse, 1951 page 28
- Harry T. Litts, 1947-49 page 1
- Donald Sheriff, 1948-49 page 24
- Art Sleierpin, 1949-1951 page 27
- George Tanner, 1952-53 page 35
- Jim Williams, 1955-56 page 38

**Personal recollections of Harry Litts, Major, USAF (Ret.), 1517 Jasper Street, Medford, OR 97501.** Harry Litts enlisted in the Army Air Force in 1941. Harry and Jo were married in 1943. Harry was commissioned at Yale in 1944, served in the Pacific in 1945, and volunteered for Alaskan duty in 1947. Harry arrived at Marks AFB about 1 June 1947. Shortly thereafter he was joined by Jo. They left Marks about 25 June 1949. Harry retired from the Air Force as a Major in 1961 and subsequently became a Doctor of Optometry in 1966 and retired again in 1981. Harry and Jo currently reside in Medford, OR.

The figures referred to in the narrative are found following the narrative beginning on page 9.

The following is a description of the facilities at Marks Air Force Base and also what it was like to be stationed there during 1947-49 as experienced by 1/Lt Harry Litts and his wife, Margaret (Jo). Identification of buildings is representative of the 1947-49 period; several of these buildings had different names and uses during other periods. 1/Lt. Litts was the Post Exchange Officer and also the officer in charge of the Base Motor Pool. Jo Litts was in charge of the Post Exchange Office.

When one went to Nome it was necessary to go by aircraft since there were no roads or highways to the western half of Alaska. The only ships that came to Nome were cargo ships that came during the three summer months when the ice was out.

(Figure 4). As our aircraft arrived over Nome one could see the small city of Nome, population 3,000 in summer and 1,500 in winter. About one-half mile west of Nome was Marks Air Force Base. With a population of about 500. Both Nome and Marks AFB are near the shore of Norton Sound which is next to the Bering Sea.

Two runways stand out on Marks AFB; one going approximately east and west and the other north and south. A short distance south of the runways one could see most of the buildings of the Air Base. The Snake River makes an "S" path through the base. A section of the river flows eastward just south of the barracks, family quarters, and the BOQ. Then it turns south and after about one quarter of a mile it empties into Norton Sound through the jetty (Figure 5). Along the west side of this last section of the river

one could see a long row of Cowin type warehouses, the gymnasium, the commissary a few other buildings, and several large oil and gasoline storage tanks. The tundra stretches five miles to the north of both Nome and Marks AFB. To the north of the tundra are low mountains.

As the wheels and flaps go down our plane, a B17 Bomber, comes in low over Nome and lines up on the main runway (Figure 6). To the left in the distance one sees the Birchwood Hangar and to the right are seen two more large buildings. The left one is the Base Fire Station and right one is the main shop building of the Base Motor Pool. Here is another view farther to the right of the runway showing most of the Motor Pool buildings (Figure 7). After the landing, the B-17 can be seen parked next to the hangar (Figure 8).

Pan American World Airways also used Marks AFB because the Nome Airport (Figure 9) could not handle such large aircraft. Here is Pan Am taxiing in after landing (Figure 10). These two small building belong to Pan Am (Figure 11).

Marks AFB was similar to many other airbases built during World War II with mostly one story wooden buildings. The large Cowin or smaller Quonset type metal buildings were frequently used for warehouses. Then, of course, there were airplane hangars. Marks AFB being a small base had fewer buildings and only one hangar after World War II. The hangar used by the Russians during the war was abandoned.

During World War II the warehouses were scattered one to four miles north of the runways around the tundra for security reasons. This made it very difficult to guard the warehouses and also to obtain supplies during the winter since the roads were frequently blocked with snow. When the war ended, construction of warehouses was started along the lower portion of the Snake River and by 1948 most of the warehouses were relocated in this area (Figure 12). A few warehouses that didn't rate a high priority, such as one of the Base Exchange warehouses was still two miles out in the tundra in 1949.

(Figure 13) This shows the west end of the base looking north. The Birchwood Hangar is on the left. The next two long white buildings contain the Arctic Indoctrination School, Base Hospital, Infirmary and the barracks for the Medical Personnel. The barracks to the right were for the rest of the enlisted men. Farther to the right are family quarters.

(Figure 14) Here is the base theater which could hold most of the base personnel. It was also used for meetings.

(Figure 15) This is Anvil Avenue, which runs east and west and was the main street. The buildings on the right are Special Service, Post Exchange, some office buildings, and the Military Police. On the left are Family Quarters, barracks, hospital, and the Arctic Indoctrination School.

(Figure 16) Looking east along the Snake River. This street runs parallel to Anvil Ave. and this picture shows the south end of the barracks and quarters.

(Figure 17) The large dark building contained Officers Club/Mess/and Bachelor Officer Quarters. The light colored building is the Guest House and the quarters for the base commander and his executive officer. It also contained several guest rooms like a modern motel. In the center was a nicely decorated and furnished lounge with plush furniture and a large beautiful stone fireplace. It was probably one of the nicest guest houses in the Air Force because it was built as one of three possible sites for the meeting of Roosevelt, Churchill, and Stalin during World War II but they didn't select Nome.

(Figure 18) This is a close up of one of the family quarters taken before the snow got deep. (Figure 19) Here are several family quarters as seen later in the winter as the snow drifts reached the roofs. (Figure 20) During the rest of the winter it was common to hear several of "man's best friends" playing overhead on the roofs which they had access to due to the high snowdrifts.

(Figure 21) The MP's are firing a salute in celebration of Memorial Day. Across the runway on the left are the two Pan American buildings. The large yellow building on the right is the Base Fire Station. (Figure 22) This is another part of the Memorial Day celebration about to take place next to the theater.

(Figure 23) Here we have the Post Exchange building that also contained the main Snack Bar and the Exchange Office (Figure 24). The main exchange store was completely refurbished in 1947 (Figure 25). And here it is open for business again. Since we received supplies only when the ice was out in the summer the Exchange had two large double Cowin warehouses located in the new warehouse area and one single Cowin warehouse located out on the tundra. The supplies had to last for one year until the ships came in again.

The mission of Marks AGB was three fold. The first was to provide support for the aircraft from the Anchorage and Fairbanks areas that were patrolling between Alaska and Russia as the Cold War heated up. The second mission was to support the small satellite radar sites and radio sites located within the area. (Figure 26) This is one of them located about 12 miles east on Cape Nome. The Arctic Indoctrination School (AIS) at Marks AFB filled the third mission by training air crew in how to survive an emergency landing or a crash landing in the Arctic.

(Figure 27) Each AIS class consisted of about sixty students and the course was one week long. The first part of the course was spend in classroom instruction and the second half was spent on the ice and beach area on Norton Sound putting into practice some of the theory previously learned.

(Figure 28) The students were taken to the campsite by a "cat train" made up of several large sleds and a caterpillar tractor. Upon arrival at the campsite the students were paired off and set to work pitching their two-man tent-type shelters shown here (Figure 29). We spent the first night side by side in the sleeping bags with the temperature at 10 to 20 degrees below zero.

(Figure 30) The second day we were taught how to build an igloo. One has to have the right type of snow so that blocks of snow can be cut from it. Igloos provide good protection from the wind but the disadvantage is that soot from candles and a small cooking stove collects on the inside surface and after about two days one can get very dirty from brushing up against the inside.

(Figure 31) Here is the luxury shelter that we built the third day. Briefly it requires snow about 8 feet deep. A central hole is first dug then side tunnels, one for each occupant, are dug out from the center hole, like spokes on a wheel. The top is a parachute, and an entrance is made. Four or five people could live comfortably for several days in this shelter with temperatures well below zero and with good protection from strong winds. Another advantage of this type of shelter is that the occupants can stand up inside and move around and cooking on a small stove is practical (Figure 32).

(Figure 33) One class built this igloo to commemorate their completion of the course.

(Figure 34) This building was the Base Commissary which was located in the New Warehouse Area a short distance after crossing the road bridge (Figure 35) over the Snake River. It was well stocked with the

usual items found in stateside commissaries with the exception of fresh vegetables and fruit due to our remote location. Prices were similar to those found "outside".

(Figure 36) Here we have the most popular building on the Base for the enlisted men: the GI Mess Hall.

There were only two aircraft assigned to Marks AFB during the period of 1947-49. One was a C-47 transport plane and the other was an L-5, a small single engine observation aircraft. We frequently had visiting aircraft, mostly in the summer, such as fighters (Figure 37), rescue squadron aircraft and now and then Navy patrol aircraft. These visiting aircraft stayed only a few days then departed. During the winter the Base Engineers did a fine job of keeping the runways clear of snow (Figure 38). I don't believe that the runways were ever closed down more than an hour or two.

Almost all articles and books about the Nome area portray life there as being very harsh; almost like being at the end of the earth but I did not find this to be true. The tour of duty with dependents was two years. Like almost all other military bases there were never enough family quarters for everyone, therefore, my wife could not accompany me when I shipped to Marks AFB. Shortly after my arrival I located a small furnished house (Figure 39) in Nome for only \$35 per month and it was not long before Jo arrived via Pan Am. By the way, 50 years later that little old (now empty) shack still sits on the same spot on Front Street. A couple months later we moved up scale to a better house at \$45 per month. Both officers and NCO's were allowed to bring their families to Marks in the 1947-49 era. There were not enough quarters for all so several had to live in Nome like we did until vacancies occurred. I don't know how many families there were but I would guess between thirty and forty. The children went to school by bus into Nome. There was a fair amount of interaction between the military and the civilian community especially in the churches and schools.

Several military families had to live in Nome like we did and we all had a unique experience since we discovered what it was like to live just like the locals: actually it put a little adventure in our modern lives

Like everyone else in Nome we had running water only during the summer months. The rest of the year we had a 55 gal. barrel on our cache which was filled by the water wagon crew (Figure 40) each week at a cost of "3 buckets for a quarter." Our house was heated by a small oil space heater and cooking was done on an oil fired kitchen range. To take a bath one heated the water in pans on the stove and poured it into a metal tub in front of the kitchen stove just like in the old Westerns. In one corner of the cache we had a small closet with a can and it was emptied every week by the "honey-wagon." Our neighbors on both sides of us were Eskimos. We met several interesting residents there such as our landlord, Mr. Gus Bjornstad, who as a young fellow had jumped ship early this century because he heard that one could pick up gold nuggets off the streets of Nome.

Nine months later, in the spring of 1948, we moved onto the Base when quarters became available. We had furnished quarters with one bedroom, a living room (Figure 41), a dining room, a modern kitchen, and a bathroom. Now we had hot and cold running water, central heat, and normal sewage facilities since the Base was equipped with a utilidor system (Figure 42) which was a luxury in most small towns in Alaska at that time and even today.

When summer arrived the Airmen made up baseball teams and played frequently on the aircraft parking area. Every year on June 21st, the longest day of the year, it was a custom at Marks AFB to play a baseball game at midnight. Later when the snow started to fly the airmen switched to basketball in the gymnasium.

During the winter the temperature in this area rarely dropped below -40 degrees F. The government provided everyone, including the dependents, with enough arctic clothing so the cold was not a big problem.

Another advantage of being stationed there was that most of the personnel got to see and sometimes meet VIP's or celebrities who came to visit Alaska. Nome always held a fascination for people due to its remote location and also its past history. Therefore, many visitors to Fairbanks or Anchorage would end up flying to Nome and spending a day or two. Two VIP's that I remember in particular were Gen. Dwight D. Eisenhower (Figure 43) who visited Marks AFB in August 1947. He gave an interesting talk to a large audience of military and civilians in the gymnasium. Later that evening we had a reception and banquet at the Officers Club for the General.

A few months later the famous Australian explorer, Sir George Hubert Wilkins, gave a talk, at the Service Club, about some of his explorations. He was one of the first men to explore both the Arctic and Antarctic from the air in the 1920's. In 1931 he led an expedition that sailed under the Arctic ice in the submarine NAUTILUS.

Whenever the base plane, a C-47 (Figure 44) called the BLUE GOOSE, flew any place in Alaska, airmen, officers, and dependents were usually welcome to fill up any vacant seats and take a trip. For example, I got to visit Anchorage, Fairbanks, Barrow, Kotzebue, St. Lawrence Island, and the Aleutian Chain.

How pleasant it is to serve on any military base depends to some degree upon the Commanding Officer (CO). When I arrived at Marks AFB in 1947 Col. Bodle was the CO. He is the man on the right; with his hands in his back pocket (Figure 43). He was replaced in 1948 by Col. H. Burkhalter (Figure 45). Both CO's were fine officers.

There was a Service Club for the airmen that provided them with a place to relax or play. The Club provided a variety of programs, games, dances, reading material, etc. just like stateside Service Clubs. Located in the same building was the Base Radio Station that broadcast popular music, weather reports, news, and other entertainment.

The Post Exchange Snack Bar (Figure 46) served various types of short orders such as hamburgers, fries, steaks, various hot and cold drinks, beer etc. We made fresh doughnuts early every morning and we also made our own ice cream in two or three flavors.

(Figure 47) Here is the P.X. Barber Shop. It was modern and staffed by a civilian barber who lived in Nome. His name was Joe Hunt.

The P. X. also ran a three lane Bowling Alley (Figure 48) with a small snack bar which was located in the same building that housed the Base Gymnasium.

During the winter time, personnel could check out skis and snowshoes from Special Services. Fishing equipment could also be checked out. Ice fishing on Norton Sound was popular in the winter and in the summer salmon fishing on the Nome River was very popular since it was daylight most of the night and the fish were very plentiful.

Some members tried their luck at panning gold on the famous beaches of Nome or at areas farther inland. A short distance out on the tundra adjacent to the north side of the Base one could view a large hydraulic

gold mining operation where they flooded the tundra with water in summer to melt the permafrost then washed the top soil off into the Snake River. This was repeated over and over until they got down to gold bearing gravel. Then the famous "Number 5 Dredge" (Figure 49) went into action to retrieve the gold.

North of the tundra on the sides of the mountains one could pick lots of nice blueberries. They could also be found along the Kugaruck Railroad.

The Base Motor Pool operated a passenger bus service (Figure 50) between Marks AFB and Nome every hour starting early each morning until late in the evening and it was free. Along Front Street in Nome were sparsely located the usual assortment of stores and businesses similar to other towns of that small size. There were several bars where one could also buy snacks or a full meal. A few "ladies of the night" also hung out in the bars; the best known one was referred to as "Dynamite Red" (due to the bright red hair, or wig, she wore) but not to her face.

The high school, which at that time was the farthest west high school in the United States, had a large auditorium which was used for various types of entertainment and meetings. Some of the churches occasionally held social activities. Personnel from Marks AFB were always welcome.

One reason that the population of Nome increased in the summer time was because the King Island Eskimos moved into Nome from King Island every summer and set up King Island Village on the east end of Nome. They brought with them handicraft work, such as ivory carvings made from walrus tusks or bones, drawings, etc. that they made during the long winter. These were sold to some of the stores in Nome and also to the Post Exchange on the Base. Many of these natives got jobs helping to unload supplies from the cargo ships. Between the arrival of the ships when there wasn't much work to do the King Islanders put on Umiak races (Figure 51) on Norton Sound. They also enjoyed blanket tossing their members and the public could watch.

Another notable personality we met in Nome was Father Thomas Patrick Cunningham, S.J., generally known as "Father Tom" (Figure 52). He was known as the "King Island Priest" and lived with them during the winter as did his predecessor Father Bellarmine Lafortune, S. J. But at any time he was needed he would help the Army, Air Force, or Navy when asked as he was also a U.S. Army Chaplain and remained in the Army Officer's Reserve Corp.

Shortly after the Cold War started the King Islanders got in trouble with Russia. For many years in the past the King Islanders had paddled their skin boats across the Bering Strait every summer to trade with the natives in Siberia. In the summer of 1947 the King Islanders had already left King Island before word arrived that Russia would not allow anyone to enter this area without official permission. When the King Islanders arrived the authorities held them there and would not let them return to King Island. Word got back to our government and immediately a small negotiating team was formed to talk with the Russians. Father Tom and the Provost Marshall from Marks AF Base were part of the team. They were flown to the Little Diomed Island and shortly they met the Russians on the Big Diomed Island and talks got under way but no real progress was made because the Russians didn't want to give an inch. In the mean time the King Islanders did trade with the natives. Then some tragic news reached the negotiators that one of the King Islanders had died. This put the Russians on the defensive since the American team blamed the death on the Russians and it was not long before the Russians agreed to allow the King Islanders to return to King Island. What actually happened, as the story goes, is that when the King Islanders were ready to depart for Siberia an old Eskimo, who had always gone on this expedition since he was a boy, insisted that he be allowed to go once more even though the other members of the crew thought that he was getting too old to make the trip but they finally consented to his request. After arriving in Siberia and while being

detained by the authorities his health failed and he suddenly died. The King Islanders returned to King Island agreed not to go to Siberia in the future until Russia changed its policy.

During 1948 the first ice breaker to ever arrive in Nome during the winter was the USS Burton Island (Figure 53). It broke through the ice and anchored about a quarter of a mile off shore. All of the Base officers and their spouses were invited on board to tour the ship and enjoy a fine dinner.

There was a severe shortage of electrical appliances after World War II and for a couple years afterward because they were not manufactured during the war. Since most of the couples in the services had been married during this time period, most of them needed electrical appliances.

At the P.X., when we ordered supplies in the summer of 1947, we were limited as to how many appliances we could even order; usually only 5 to 10 of any one item like a waffle iron or mix master. So when the ships arrived in the summer of 1948 and we found out what we had, word quickly spread around the Base. There were not enough to meet the demand so anxiety built up. To keep it fair and to keep the peace, Jo and I got together with the young lady in charge of the Service Club and set up a raffle each month for one or two particular items. For example, if the P. X. had only six waffle irons, couples interested in purchasing one for their personal use could put his or her name on a slip of paper and place it in a jar at the Service Club. Just before payday a public drawing was conducted by the Service Club manager. The first six names drawn could purchase the waffle irons. This worked out fine and also as the P.X. officer it kept me on speaking terms with everyone.

For those who liked to explore the country side there was an old abandoned railroad, called the Kugaruck Rail Road, (Figure 54) that ran about 50 miles north of Nome. The Base Motor Pool made two sets of wheels that could be put on jeeps that fit the rails(Figure 55). The fellow changing the wheel on the Jeep in Figure 55 is Lt. Litts. A small party could check out these jeeps and take an interesting sightseeing trip and also go fishing at Salmon Lake (Figure 56). There was also good Ptarmigan hunting along this railroad. If one did not want to bother with the jeeps he could take the same trip up the Kugaruck on a small commercial one-car train owned and operated by a couple in Nome (Figure 57).

Like all military bases everything was not perfect at Marks AFB so I will mention a few of the problems. The huge swarms of hungry mosquitoes that came off the tundra with the melting of the snow every spring never failed to happen. They were not quite so bad within the living area of the Base or within Nome but when one got near the tundra or along the rivers fishing it was necessary to be completely covered with a head net and gloves in addition to mosquito repellent. By late July or August the worst was over each year.

Most material items, food, drinks, etc. are worth quite a bit more in Alaska, especially in the more isolated areas like Nome. As a result this encouraged stealing by some local civilians, and also some military personnel. The metal warehouses on the Base were easy to break into because a thief could unscrew a few bolts then remove a section of paneling and walk inside. The farther a warehouse was out on the tundra the easier it was to break in and rob it, and the thieves were seldom caught. Whenever a robbery was discovered in the Post Exchange warehouse we were required to take a complete inventory so as to determine the extent of the loss. This happened about every 4 or 5 months hence it caused us a lot of extra work.

Another unpleasant thing about the Nome area was that all of the roads were dirt. When the snow melted or when it rained there was plenty of mud every place (Figure 58) and hardly anyone had a motor vehicle



of their own. So except when one rode the bus he walked in the mud. They did have board walks along both sides of Front Street in Nome which helped.

Keeping motor vehicles going in this area in winter was difficult. Electric engine heaters helped but did not solve the entire problem because the oil in the transmission or grease on the wheel bearings would get so stiff that the wheels would not go around. We always kept a few 6 x 6 trucks in heated buildings at the Motor Pool at night to be used in the morning to tow other vehicles that had to be parked outside all night to get the wheels moving and the engines started. The Base CO kept a jeep parked next to his quarters with the engine idling all night long so that he could get to Operations if needed in a hurry or to any disaster on the base like a fire. As a result we had to replace the engine at least once a year.

Now a few comments on the more serious and military side regarding the Base as a result of the Cold War that started about 1946. Being young and feeling excited about life getting back to normal after World War II made most of us think that there was little chance of anything happening soon as a result of the Cold War. In 1948 my attitude changed somewhat when I was sent along with another officer and three NCOs to the Demolition School at Fort Richardson near Anchorage. Upon graduation as demolition instructors we returned to Marks AFB where we surveyed all of the facilities, both military and civilian, in the entire area that could be of any use to the Russians if they invaded. Then we trained several two man teams of airmen in demolition and assigned each team to a particular thing to be destroyed if necessary. For example, a large mining company had big machine shops with many large machine tools such as lathes, drill presses, power units, etc. We figured out the explosive charge necessary and the best place to attach it to destroy each piece of equipment, made up the charge and labeled it then stored it in a powder magazine on Marks AFB.

If the Russians invaded we figured that each team had no more than 30 minutes to get its explosive charge from the magazine, rush to its assigned target any way possible, and blow it up.

Since Marks AFB had no real defenses other than small arms and the nearest support units were about 500 miles away, it became obvious that it would have been next to impossible to try to save our Base or its personnel, therefore, higher headquarters probably planned to write off Marks AF Base if we were attacked. This is most likely why the Base was closed down in the near future.

When summer drew to a close and the ice started to drift in from the Bering Sea the last ship for the year pulled up its anchor and sailed away (Figure 59). As everyone watched in silence one could almost feel the sadness as we all realized that now we would almost be completely isolated for several months and it wouldn't be long before the snow starts to fall and the ice moves in from the Bering Sea which signals once again that winter is not far off.

From the foregoing one can appreciate that even though everything was not perfect, that being stationed at Marks AFB during the late 40's was a unique experience, in fact, I tried to extend my tour of duty by six months but the "Brass" at the Alaska Air Command turned down my request, most likely due to the misconception that most people had of life in the Nome area. They probably reasoned that anyone who had served two years there and asked to stay longer was on the verge of becoming a mental case.

Shortly before my final departure from Marks AFB I watched a beautiful sunset from behind the Birchwood Hanger (Figure 60). I did not realize at the time, that as the sun disappeared below the horizon and the sunset faded away, so would Marks AFB soon start to fade away and disappear forever and half a century later few residents of Alaska would even know that there had ever been a Marks Air Force Base near Nome.



Figure 5

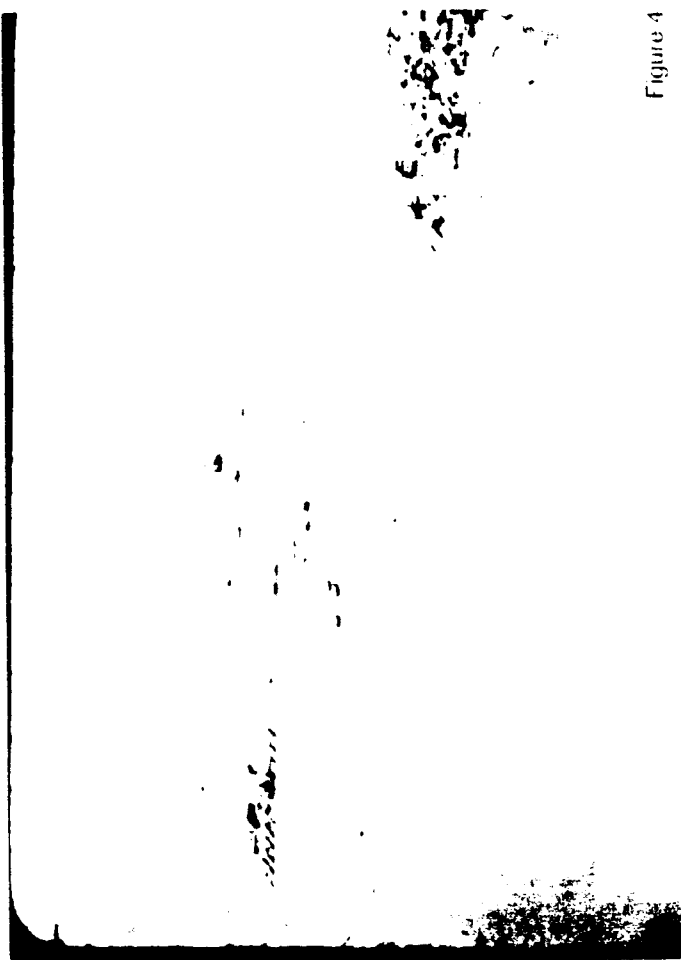


Figure 4

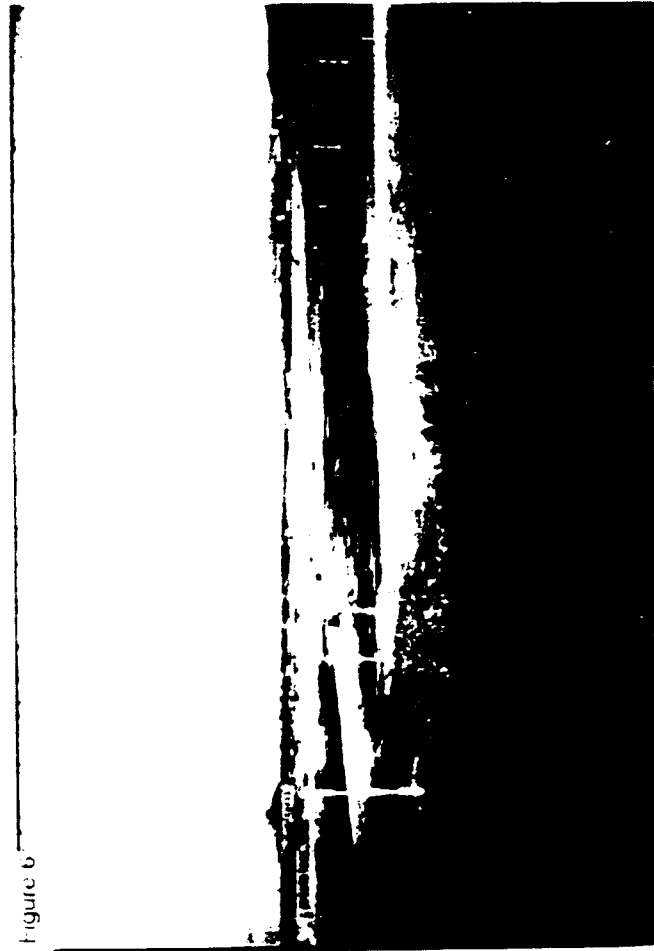


Figure 6



Figure 7



Figure 9

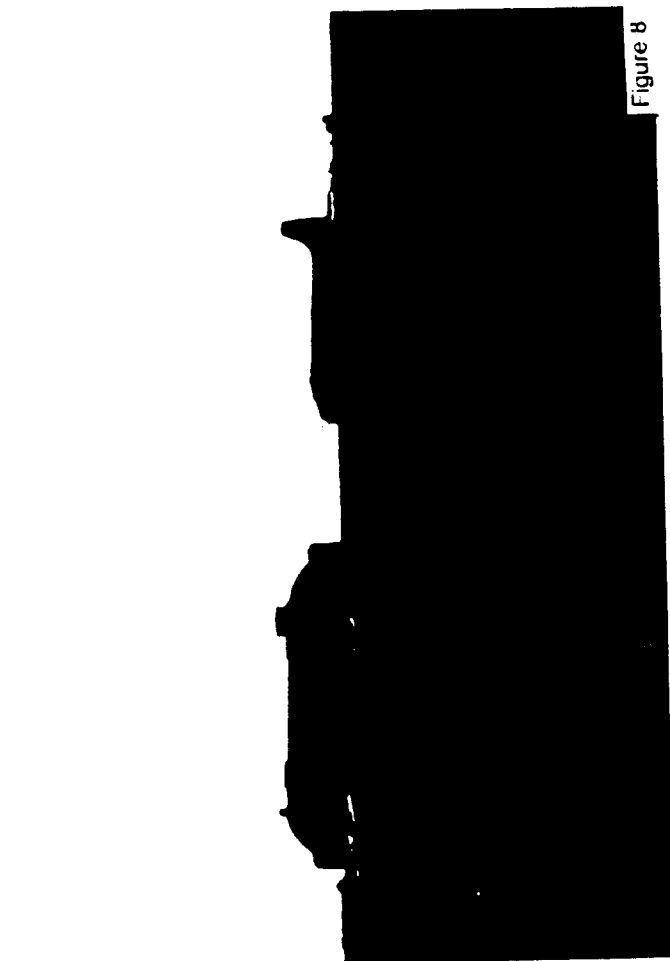


Figure 8

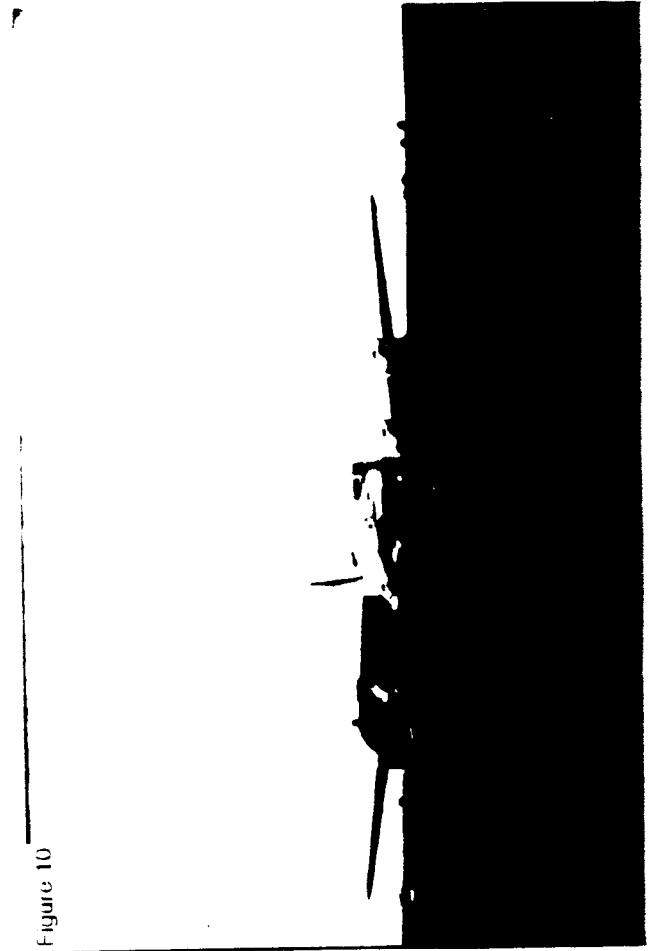


Figure 10



Figure 11



Figure 12

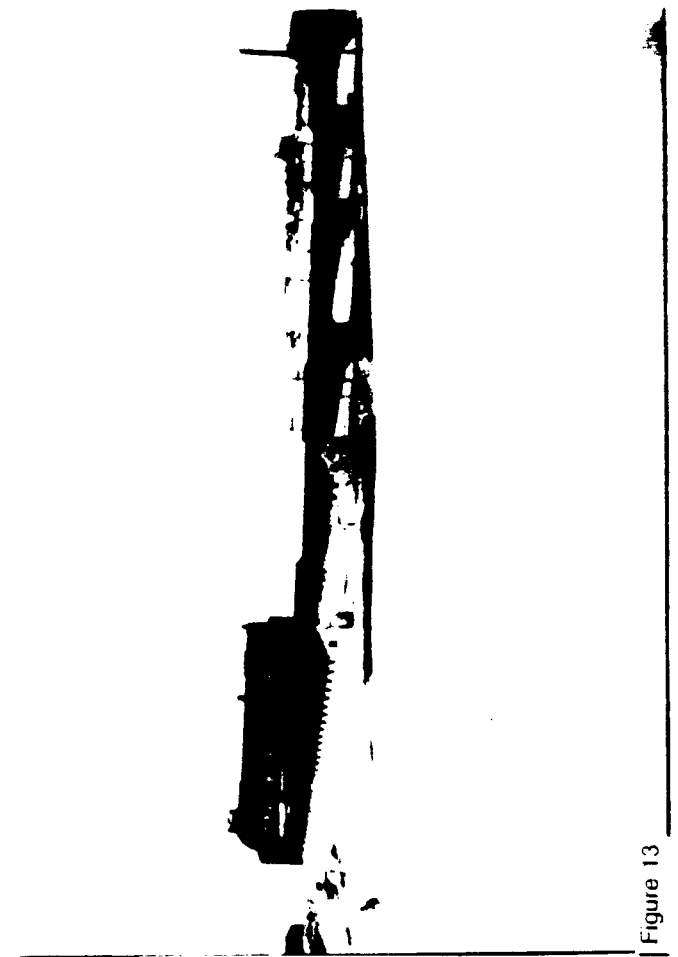


Figure 13



Figure 15



Figure 14



Figure 16



Figure 17

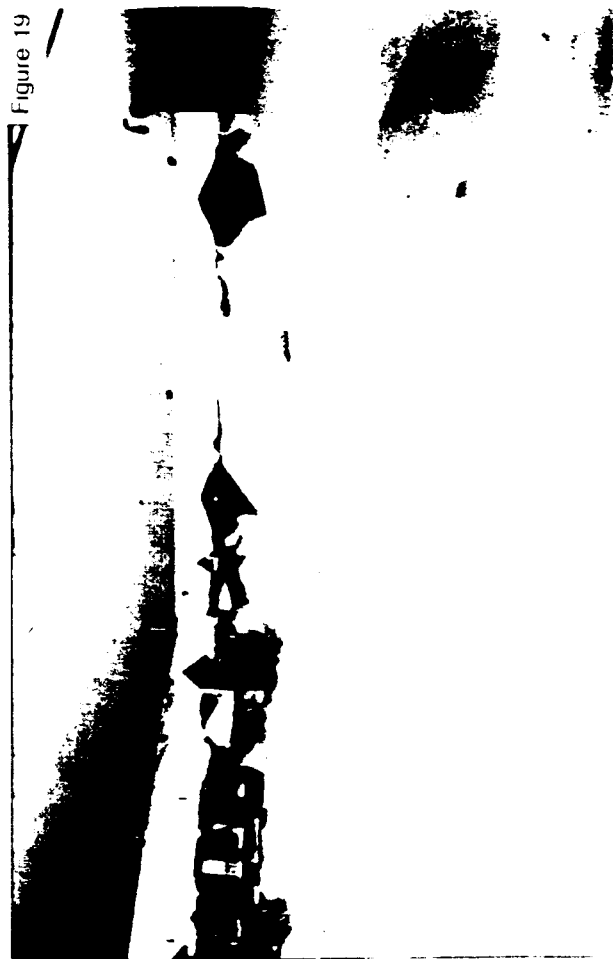


Figure 19



Figure 18



Figure 21



Figure 22



Figure 20



Figure 23



Figure 24

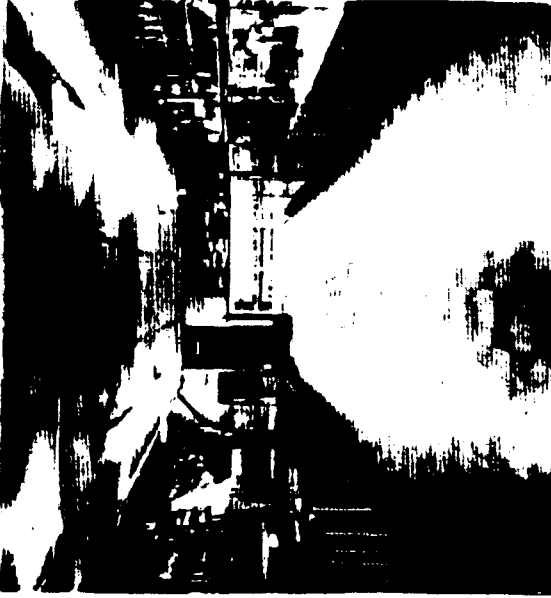


Figure 25



Figure 27

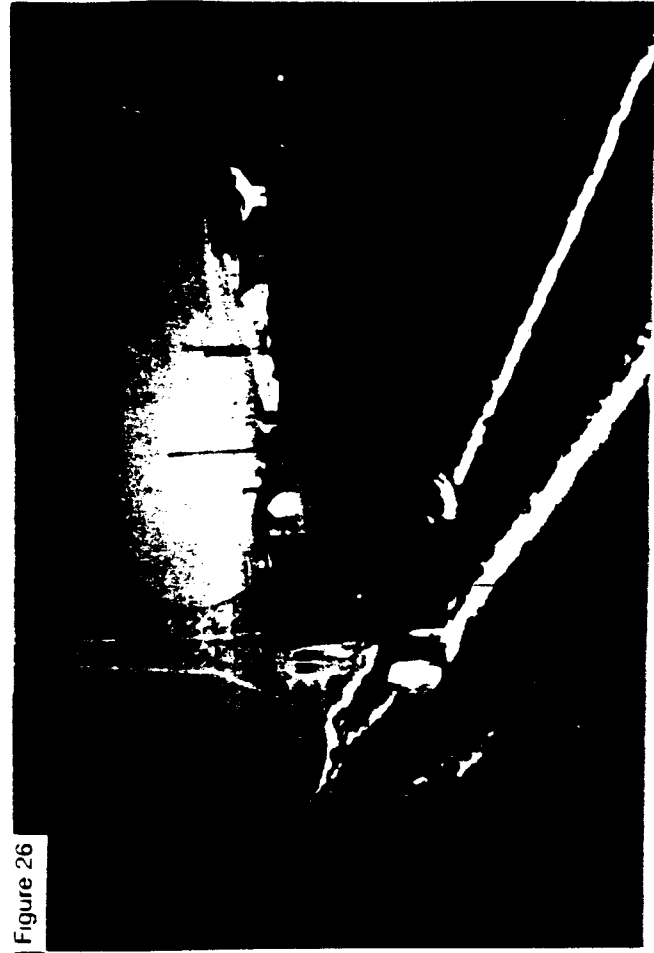


Figure 26



Figure 28



Figure 29



Figure 31

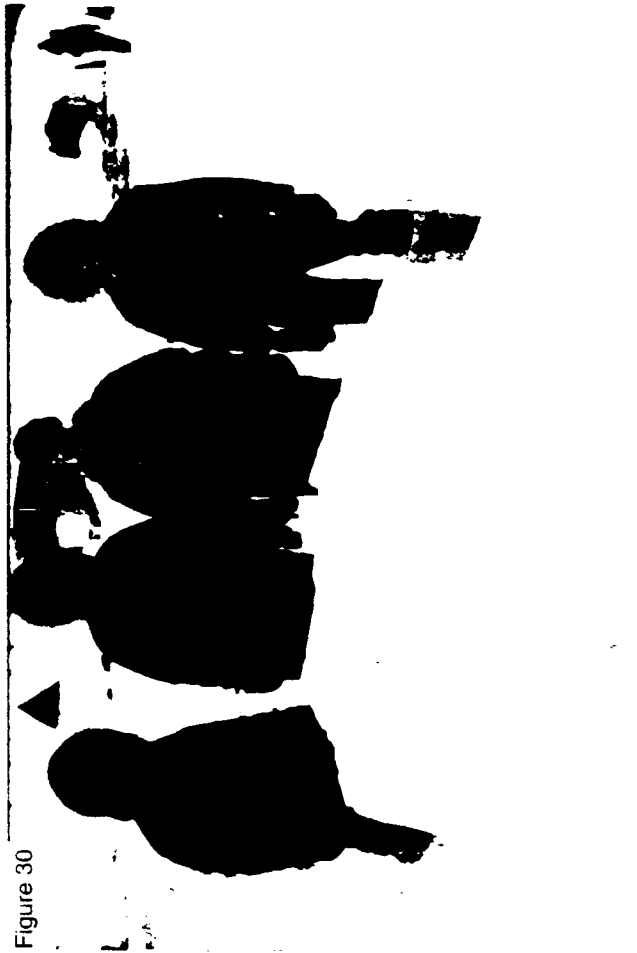


Figure 30





Figure 33



Figure 34



Figure 32

Figure 35





Figure 37



Figure 38



Figure 36

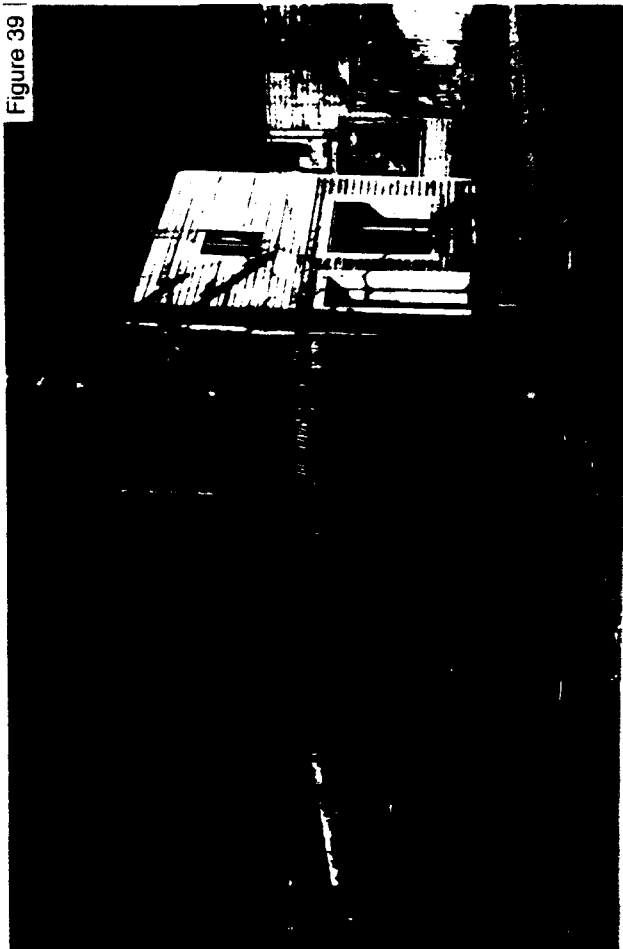


Figure 39

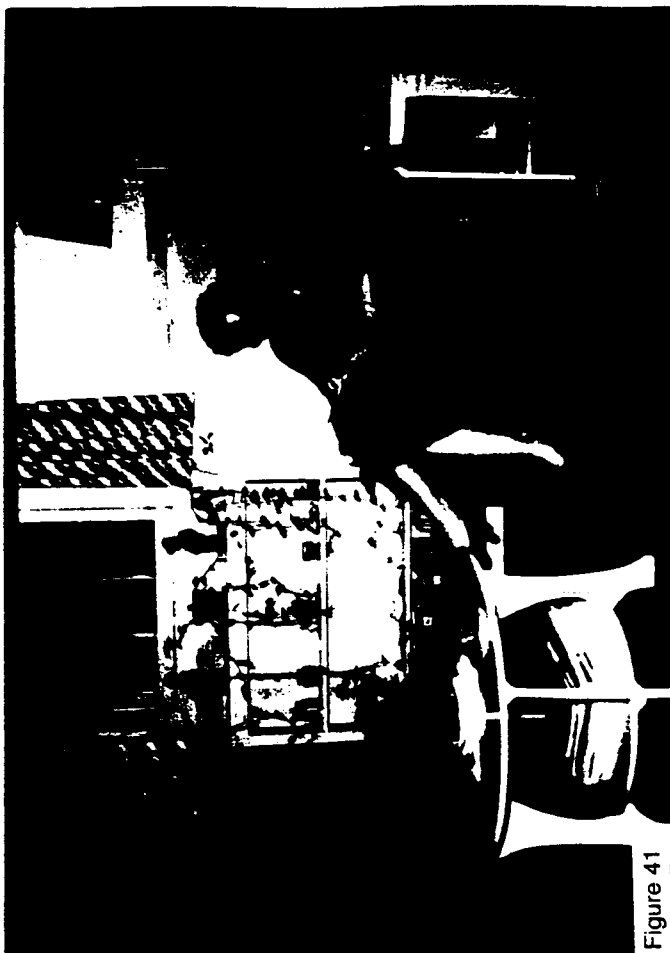


Figure 41



Figure 42

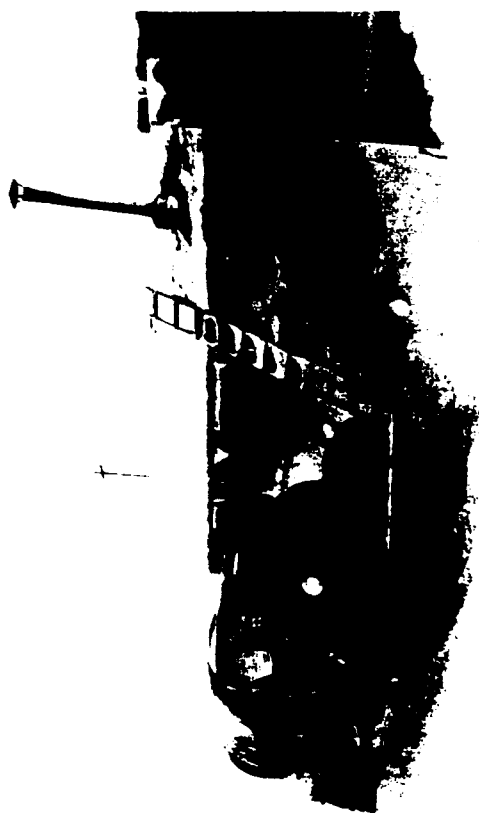


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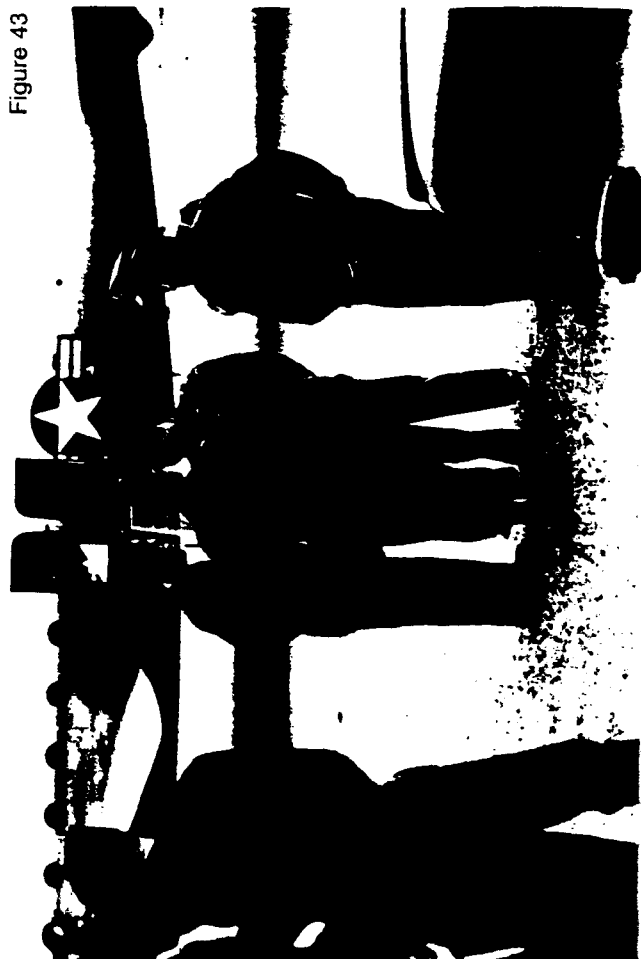


Figure 43



Figure 44



Figure 45



Figure 46



Figure 47



Figure 48



Figure 50

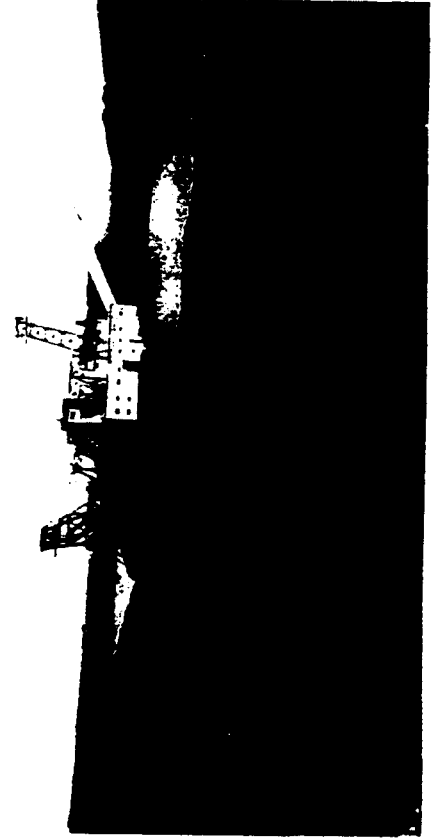


Figure 49



Figure 51



Figure 52

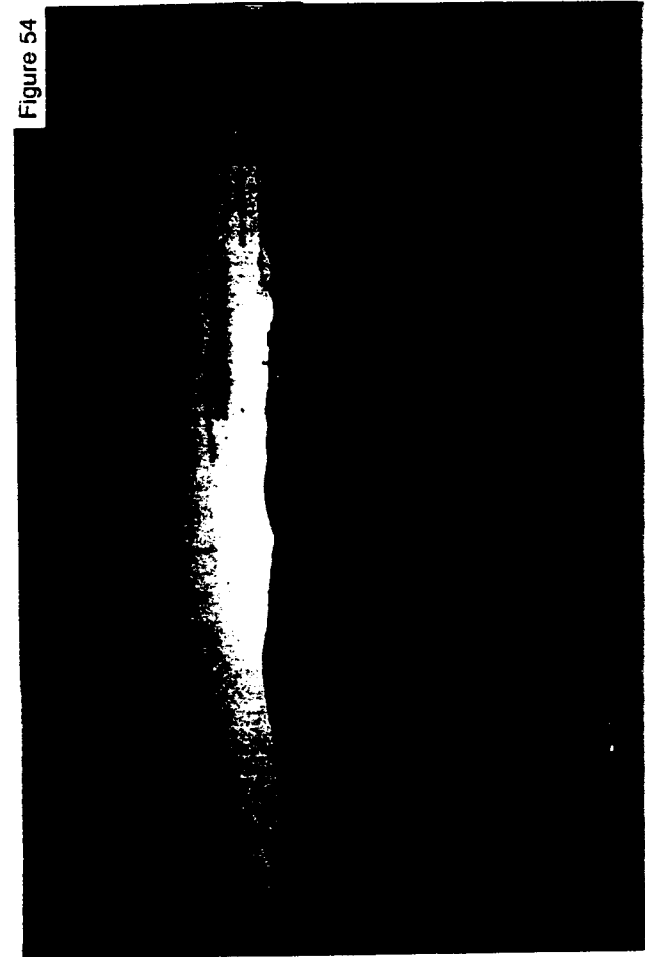


Figure 54



Figure 53



Figure 55



Figure 56



Figure 58

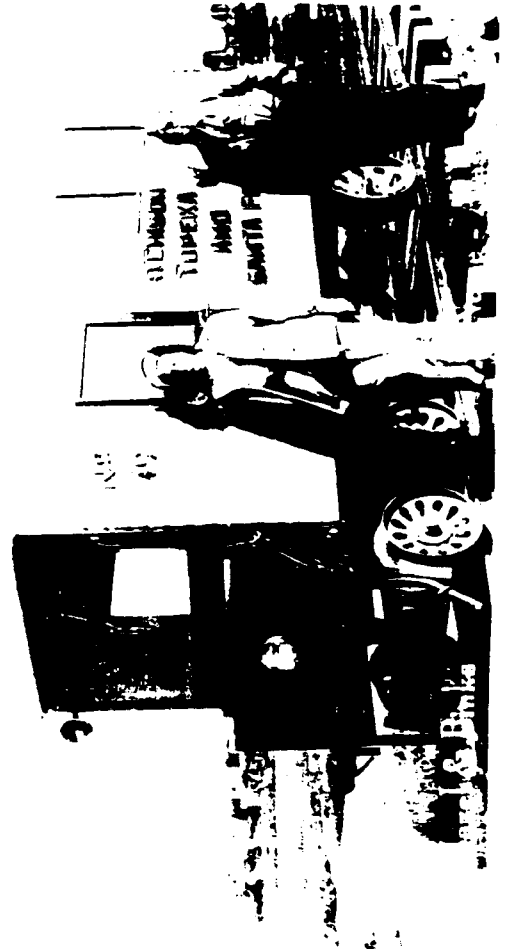


Figure 57



Figure 59

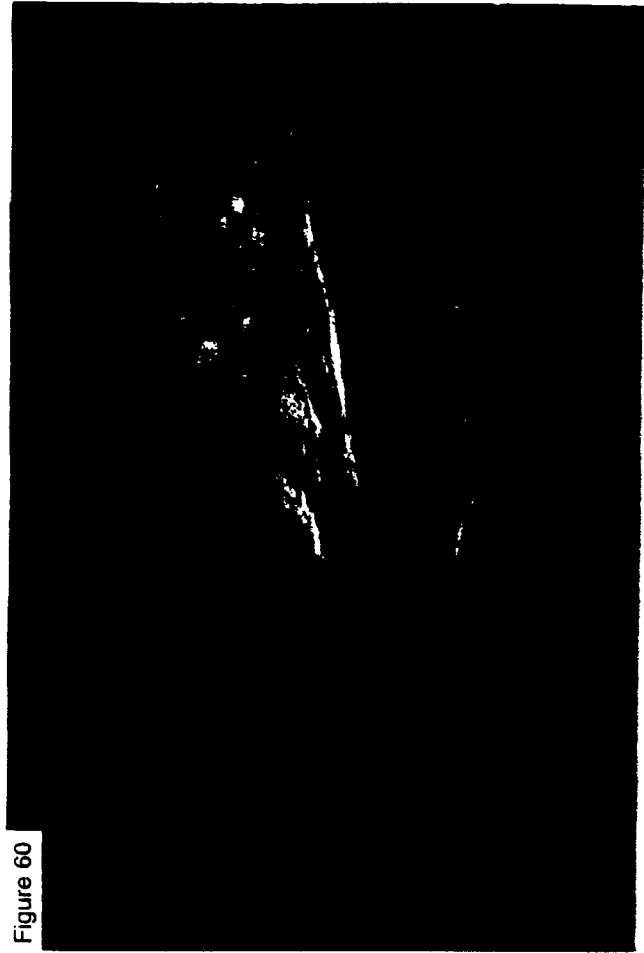


Figure 60



**Personal recollection of Sam M. Gardner**, 1708 Prairie Park Lane, Garden City, KS 67846. Sam Gardner was stationed at Marks AFB between September 1948 and September 1949 and was a Private First Class at the time. Sam Gardner is currently a member of the Board of Directors of the Air Force Association.

I went to Hamilton AFB CA for shipment to Nome. We sailed out of Oakland CA on the Gen. Eltinge to Whittier, AK. Of course at this time Alaska was a territory. Went to Elmendorf AFB then to Nome on a C-124. I was assigned to run the bowling alleys which were in the gymnasium. During February of 1948, I believe, the alleys were shut down because of their poor condition.

As you know a lot of the land was leased. During the war it seems that they stored a lot of fuel in 55 gal. drums. After the bowling alleys were shut down in February, I was put on a detail to load the fuel from the drums to the 6x6 tanker trucks that we had. It was very cold from February to June. In June I got to be a truck driver and needless to say my life improved.

One of the first things that I got to do after I got to Marks AFB was to take an M1 rifle and clean the cosmoline off the rifle. What a way to spend a Saturday morning. Looking back after fifty years it seems that things were not all that bad. We had a USO club, a movie house, PX, snack bar and the town of Nome. We took at least one five-mile hike on the ice one Saturday. The USS Barton Island, a Coast Guard Icebreaker, came to Nome during the winter and was about two miles off shore. I remember a lot of us walked out to the ship. We had a very good lunch on board. Coffee was hot and strong. Made a nice change of pace.

There were two women who worked for the Weather Bureau assigned to Base Weather. One of the forecasters was a M/Sgt. Bobby Mimms. The person in charge of the gym was Sgt Overcash. Sgt. John Mock was in charge of the AFRS station. The PX officer was Lt. Litts. The Provost Marshal was Capt. McCorry. Adjutant was Maj. James L. Livingston. Commanding officer was Col. Burkhalter. Two aircraft were stationed at Marks, a C-47 and a L-4 (observation). It seems to me there were about 250 enlisted and not very many officers. I would think not more than twenty if that many. The main unit at Marks was the 5030<sup>th</sup> Air Base Squadron. At that time Marks AFB was considered "foreign service."

**Personal recollection of Ralph Graves**, 950 Garden Gate Drive, Manteca, CA 95336. Ralph Graves was stationed at Marks AFB between July 1948 and July 1949. Ralph was seventeen years old when he went to Marks in 1948 and he spent his eighteenth birthday, December 28 at Marks. Ralph is planning a 50-year return to Nome in December 1998 to celebrate another birthday. Ralph recalls that there were about 300 Air Force people stationed at Nome and the Navy had people on temporary duty and a B-24. He also recalls a B-17 on skis. Nome had a population of 1,600 in 1948.

**Personal recollection of Donald Sheriff**, Maj. USAF (Ret.), 11519 222<sup>nd</sup> Street, Linwood, KS 66052-4111. Donald Sheriff was stationed at Marks AFB from August 1948 to November 1949; was a Corporal upon arrival at Marks and was promoted to S/Sgt. before departure. In addition to these recollections, Don has provided a copy of a photo taken 25 September 1948 of all of the Air Force personnel at Marks. The photo shows 445 people and the following units are identified: 5030 Air Base Squadron, Detachment 1 of the 157 AACS, and 625th AC&W detachment.

My first flight in the Air Force was from Elmendorf AFB to Marks AFB on a C-119, a noisy, rattling cargo plane. It was memorable.

The Air Base was called Marks AFB during the period I was there.

I lived in Bldg. T-26 "Times Square". We were permitted to decorate our cubicles with curtains, bed lamps, pictures, etc. We made our bed lamps out of 3 lb. coffee cans obtained from the mess hall and wired from materials purchased at the PX. NCOs were normally assigned a corner cubicle which gave much privacy. Others shared a cubicle with another airman. This was the first time in my career that I did not bunk in an open bay barracks. I think there were about 100 men assigned to the barracks. It was also the first time I was assigned an M-1 and stored in the barracks. The weapons were kept in gun racks which were locked with the barracks chief assigned the keys. The latrines were open areas. One soon learned not to shower between 8-9 PM because men returning to barracks from the theater used the latrine entrance. The shower room had no wall between outside entrance and showers. When a 20 below zero or colder blast hit the shower the steam would freeze. The barracks were heated with moist steam heat which if you lived near a heater could be very uncomfortable.

The mess hall was located in front of T-26, and as I recall, was a quonset hut type building raised several feet off ground. There was a sign posted that stated do not pry gold nuggets etc. out of the floor under penalty of a courts martial. It seems the gravel used in building the floor was taken nearby where there were still gold nuggets and flakes in the material. The food was fairly good. We lacked fresh vegetables and fruits most of the year. Sometimes the C-47 assigned to base would fly to Edmonton to pick up fresh supplies. The supplies were brought in by ships during the summer months and stored in quonset huts (heated). We used powdered milk and frozen milk. We sometimes would have salmon during the spawning runs.

All khakis were taken away from us at Port of Embarkation ( Hamilton Field, CA). Normal wear was ODs with Ike jacket except for work details such as KP. Even in the field we wore ODs. They were woolen heavy material for warmth. Our shirts were same material.

I worked in Personnel office located in the base hangar. We were on the second floor, southwest end. The base commander's office was a room off the personnel area. Col. Burkhalter, later Col. Jamison, Maj. Livingston, civilian secretary (wife), and 8-10 airman worked in the office. In those days all payrolls, personnel records etc. were maintained by hand. Copies were either carbon copies or mimeograph copies. It was a perfect place for administration or personnel airmen since you were trained in finance, officers records, enlisted records, travel orders etc. Promotions came fast, in a year I went from Cpl. to S/Sgt.

The length of tour was one year with extensions permitted. Normally the extensions were three months each. Your OIC and the Base Commander had to approve the extension. With concurrent travel and command approval dependents were allowed and the tour of duty was three years [editor's note: other sources say two years]. There were some family quarters on the base for essential personnel. Otherwise, the families lived in Nome. The children went to school in Nome.

For recreation we had an NCO club(Corporals and above), Officer Club, bowling alley, movie theater, gym, BX, Commissary, and visits to Nome. The NCO club was a normal club for drinks, snacks, and dancing on weekends. The theater ran movies each evening. I worked about 12 months as a projectionist for which I received a small salary. We had recent movies. They were shown for several evenings and then a new one would be shown. We had a popcorn machine. The gym had a small basketball court. We had a semi league, more a pick-up game. The wall was brick (rough ) about a foot from basket. Upon laying up the ball, a shove could make arm and side look like hamburger. In the summer time, we played ball.

At Special Services you could check our fishing and hunting gear, camping equipment etc. In summer, we would check our fishing gear, go to mess hall for sandwiches, commissary for beer and soft drinks, to motor pool for a truck and go fishing on one of many streams. We would drive the truck on the stream bed. Primary fish was the grayling, a trout-like fish. Some times we would go to the beach and fish for tom cod in the Bering Sea. We would catch hundreds in an afternoon. These we gave to the Eskimos for drying for dog food.

A Navy flying outfit came in early summer for a three month stay in 1949. We were never sure of their mission. They were a photo reconnaissance unit. Rumor had it that they were photo mapping eastern Russia. They stayed in the Arctic Indoctrination School student barracks. They were a crazy group. When the migrating geese landed on the runway the sailors made bows and arrows and tried to hunt them. The geese were too smart. On the 4th of July 1949, the airmen played the sailors in a midnight baseball game and beer bust. Lots of fun.

While at Marks there was a concern that the Russians might attack. The Berlin airlift was in full swing. We would have alerts in which we grabbed our rifles and a few 50 caliber machine guns and head for a perimeter defense around the airstrip. Remember, these were Air Force personnel with no idea of ground defense let alone how to fire weapons other than basic training. If there was snow on the ground, we would grab white sheets off of our beds, to cover ourselves in the snow. At times during the alert an officer would come by and tell us we were getting low on ammo. One of us would have to go back to ammo supply to pick up additional ammo. We did not have to bring it back only a note stating that we received ammo from supply to prove that we had gone there. On my shift to go to supply, supply troops didn't have a pencil to write my note. I made them take a stick and grease to write the note. There was no way I wanted to test the system and a possible courts martial.

Our main mission was support of the Arctic Indoctrination School which provided arctic survival training for aircrew members flying in arctic regions. The base also supported an early warning radar site and an Army communication outfit on the south side of Nome.

I was permitted by Major Livingston to attend the Arctic Indoctrination School prior to my deployment back to the states. It was an experience, I'll never forget. It came in handy when I later was a SAC navigator flying out of Goosebay Labrador and Thule Greenland. I was convinced that I could survive if I landed without critical injury. We learned to build shelters - parachute, ice caves and igloos. We had to live in our shelters in below zero temperatures. An igloo can be very comfortable. Later in my career, I was assigned the SAC Arctic Indoctrination Team. We visited units deploying to the Arctic (Thule, Goosebay, Elmendorf etc.) thirty days in advance for ground training and then deployed with the unit for thirty days to monitor them. Result early promotion to Captain and a regular commission.

A visit to Nome provided a chance to see young ladies, shop for Eskimo artifacts, and participate in community activities. The base, in partnership with Rotary, sponsored a Boy Scout troop in Nome. The troop consisted of dependents as well as boys from Nome. Eighty percent were Eskimos. I was Scout Master for a period of time. We had tents, skis, mess kits, canteens etc. furnished by base supply. First Sgt. Gifford's son was patrol leader. We had a camp several miles out of town for summer campouts. We had a building supplied by Nome in town which I had to arrive early to turn on heat. I learned more that I taught from the Eskimo boys on camping etc. I discovered Eskimo boys like to shoot basketball but not play the game because of the contact. They were excellent at strength events and blanket tossing. The migratory Eskimos came to Nome in summer months in their umiaks (large walrus covered whaleboats). These boats could hold up to 30 people. The Eskimos would turn the boats over and place them on sawhorses. There they would live while carving ivory figures and making clothing for sale to tourists. At

the end of summer they would return to their winter quarters miles away. I collected several pieces of ivory which I watched being carved. I took photos at the time. The photos and ivory are now on display at Kansas University Anthropology Museum.

The Alaskan Air Command issued certificates to people crossing the Arctic Circle. There was one C-47 assigned to the base. Trips to Kotzebue, above the Arctic Circle, were scheduled from time to time and anyone could apply for a seat. I got a flight in the base C-47 to Kotzebue. We landed on the beach. There was a diner there where we got fresh peach pie and ice cream for \$4.50, a large sum when you made \$96 a month before deductions. It was the first I had since leaving the States. About three years ago in the news was an article about a Dairy Queen opening in Kotzebue. It claimed to be first diner in Kotzebue. I wrote a letter to them to tell them they were wrong.

There was a huge dredge gold mining just north of our runway. It used steam to melt the tundra, scoop up the gravel, separate the gold and put tailing at rear. It would move slowly each hour. We would pan for gold on the beach during spring thaw using sluice boxes. One could get \$50-\$100 in dust over a weekend. In the Spring during the thaw, you could put up sluice boxes where the tundra fell to the beach. The runoff contained gold dust and sometimes a nugget. This you could sell in Nome.

We were paid in silver dollars on pay day. Silver dollars are hard on pockets. Alaskans didn't like dollar bills. We had very few dollar bills as silver dollars were the accepted coinage in Nome.

I recall that there was some activity at Anvil Mountain, I thought it was an early warning radar site there [editor's note; this isn't confirmed, portable radar equipment was located at Anvil Mountain, and many other potential sites, for a short time in 1948 to conduct radar tests.]

I think the visitation of the Chiefs of Staff ( Gen. Bradley and Gen. Vandenberg) in summer of 1949 was very unusual. In my entire career I do not recall a Chief of Staff visiting any other base where I was stationed. [editor's note: Harry Litts also describes a visit from the Chief of Staff, then Gen. Eisenhower, in August 1947]

I recall that Nome Field was a ferry point for aircraft being sent to Russia during World War II. There were some wreckage out on tundra with Red Star marking. There were weapons and fuel buried in the tundra. I believe Sam Gardner was assigned to reclaim some of the fuel.

**Personal recollection of Art Sleierpin, 165 West Rogues Pass, Huntington, NY 11743.** Art was stationed at Marks for 15 months in the era 1949-1951. There were approximately 225 Air Force and 125 Navy stationed at the base. Aircraft assigned to the base were a Navy VP-61 (Navy version of B-24), an Air Rescue Service SA-16, and a B-17. The Navy was doing photo reconnaissance along the Russian border. Generals Marshall and Vandenberg visited Marks during the time Art was stationed there.

**Personal recollection of David J. Aul, 45127 Harrison Road, Spartansburg, PA 16434.** David Aul was stationed at Nome Field from July 1952 to May 1953 with a detachment of the 333d Communications Reconnaissance Company, a unit of the Army Security Agency and was a Corporal at the time. According to David, their mission was to monitor Soviet radio traffic. The 333d was based at Fort Richardson with units at Nome, Tin City, Kotzebue, Point Hope, and Gambell. The first units of the 333d arrived in Alaska in October 1951. Nome was a relay point for all other sites to report information that would be sent to Fort Richardson. The sites were set up and operational by April 1952. David arrived at Nome in July 1952. The Nome Field unit was Detachment T-23 with 56 men commanded by Warrant Officer James Haughney. Gambell had about 22 enlisted men and each of the other sites about 12 men. David left Nome Field in

April 1953 for Fort Richardson and medical attention for severe ear infections from the Nome Field water supply. David does not know how long the 333d remained in Alaska after he left Fort Richardson in September 1953. The September 1997 issue of the VFW Magazine described the Army Security Agency and the Air Force Security Service (see recollections of Paul D. Heckh) as elite units that spearheaded the clandestine war against the Soviet threat. The Army Security Agency manned remote listening posts around the world to monitor and interpret Soviet messages. The Air Force Security Service, which was created from the Army Security Agency in 1948, monitored Soviet radio, radar and electronic transmissions.

**Personal recollection of Paul D. Heckh**, 340 McClellan Dr., Pittsburgh, PA 15236-4106. Paul served at Nome Field with Detachment 3 of the 3<sup>rd</sup> Radio Squadron Mobile, a unit of the Air Force Security Service, from January 1952 to January 1953. The 3<sup>rd</sup> Radio Squadron Mobile was headquartered at Elmendorf AFB. At Nome Field the 3<sup>rd</sup> RSM and the Army 333<sup>rd</sup> Comm. Recon. were located adjacent to each other and carried on similar activities.

**Personal recollection of Ed Darrow**, #4 Via De Miguel Northeast, Albuquerque, NM 87109. The Navy had a mapping squadron at Marks from 1947-1953. They had a minimum of four of the Navy version of the B-24 and fifty people. The mission was aerial mapping of the Brooks Range in support of Naval Petroleum Reserve Four. They also flew out of Kodiak and Kotzebue. The Navy Photographic Squadrons Association includes many men who were stationed at Nome.

**Personal recollections of Joel B. Krausse**, Col. AFRES (retired), 1833 S.W. Laurel Street, Portland, OR 97201. Joel B. Krausse was a member of the 160<sup>th</sup> AC&W Group, composed of Air National Guard units from Oregon and Washington. The 160<sup>th</sup> was federalized on 1 May 1951 and stationed to Alaska. Joel, at that time a second lieutenant, was ordered to Cape Lisburne where an AC&W station was under construction. Lt. Krausse and his detachment of 29 airmen were the first Air Force personnel stationed at Cape Lisburne. They were tasked with providing site security, and were the sole personnel at Cape Lisburne when the contractor shut down operations for the winter. The following has been copied from A Brief History of the 160<sup>th</sup> Aircraft Control & Warning Group, May 1951-February 1953, in the Alaskan Theater of Operations, authored by Joel B. Krausse and others. The complete report is available at the Oregon Military Museum, Camp Withycombe, Clackamas, OR 97015-9150. In the text which follows A-1 is the radar detachment at Marks AFB, F is the designation for the new AC&W sites then under construction: F-4 is Cape Prince of Wales (Tin City), F-7 is Cape Lisburne, and F-9 is Northeast Cape (St. Lawrence Island). The text which follows describes the F-7 detachment's stay at Marks AFB and their sea travel to Cape Lisburne including description of the Point Spencer area and its airfield which was a World War II satellite of Marks AFB.

### AND AWAY WE GO AGAIN.

At about 0900 hours on the 13 June 1951, the detachment departed Ladd AFB, Fairbanks, AK., by MATS C-47 aircraft for Marks Field, Nome AK. We arrived in Nome around 1200 hours and walked over to the radar site detachment A-1 buildings. For some reason the squadron people in charge at Ladd AFB, had failed to notify the A-1 site Commander that some 30 people were inbound and would be spending some time there before they all departed by water transportation to the Cape Lisburne radar site.

As I look back in time, one of the happenings on this Alaskan military tour that shook me up the most was when the MATS C-47 approached the runway at Marks Field. I was sitting strapped in one of the canvas seats on the aircraft. As I looked out the window I saw in big black letters, USSR on the side of a building at the airfield. Immediately I thought, has the C-47 pilot lost his way and we had landed in Russia? Turns

out that the "USSR" was on the side of a working placer mining gold dredge located on the northeast corner of Marks Field. The dredge belonged to the US Smelting and Refining Co. Boy, was I relieved.

I also reminded the A-1 site commander, that there would be two more thirty man detachments staging out of Marks Field to the new radar sites at F-4 and F-9, within the next week or so. He said that this was news to him.

We all found bunks so to speak in the WW-II one story buildings used by the A-1 site people and stowed all of our belongings in a secure area. Since the A-1 site only had about 45 people assigned at the time, some of our lower ranking troops got to pull KP and work on some of the garbage and clean-up details.

Later in the day, all of our support equipment and miscellaneous supplies to be used at the Cape Lisburne radar site arrived from Ladd AFB, on a MATS C-54 cargo aircraft. We had fun removing all of this material from the C-54 since there was absolutely no unloading equipment available at Marks Field. Fortunately for us, we were able to use the only "6X6" truck in operation at Site A-1 for this task. We stored all of this material and supplies in one of the WW-II wooden aircraft hangers that was still standing at Marks Field. We had to place one of our troops in shifts to guard the supplies since there was absolutely no security at all on the base.

The next day or so, as I had been directed, I walked to downtown Nome in search of Mr. Galagher, the US Army Corps of Engineers (C of E) District Engineer, 1/LT. Flashbaugh, the MATS representative and CPT. Guedat, the Port Commander at Nome, AK.

Found Mr. Galager in a small office in what was called the "Federal Building". This was a wooden structure as I recall, on the north side of the main street of Nome, AK. The Post Office was in this building along with the US Marshal, the local Federal Judge and the local jail.

This building looked like the first structure built in Nome since the gold rush days. As you faced the building from the street, the structure had a decided list to the right since it apparently was built on a permafrost base some years ago. However, you must remember, that in this time frame (1951-52) Alaska was a "Territory" not a "State" and therefore was "governed" mainly under Federal laws.

Mr. Galagher and I had a long discussion regarding the contractor who was building the radar site at F-7, Cape Lisburne. He completely agreed with the "assessment" that the 532nd Group staff officers had made during their recent visit. He stated as I recall, that I "must do everything possible to insure that "Government property" is protected at the construction site and to assist the Resident (C of E) Engineer when requested to insure that the construction work at Site F-7 continues uninterrupted". I suggested that if he wanted any other action and conduct by the USAF site forces, beyond my present instructions, he should contact my Squadron Commander at Ladd AFB, through his Anchorage, AK., District Corps of Engineers office.

Mr. Galagher told me that he would like to be able to send radio messages on the Air Force "AC&W" High Frequency "HF" radio communication network from the local radar site A-1 to his Corps of Engineers people at the various radar construction "F" sites.

From what I was able to determine from Mr. Galagher's request, mail correspondence with his "F" Site engineers, took up to two weeks to get a reply regarding an urgent engineering or construction matter. In addition he said, if he sent a radio "message" on the official "Alaska Bush Communications Network" which was integrated with the ACS [Alaska Communications Service/US Army Signal Corps], the radar

site construction contractors would receive the "message" since these construction firms were tied into the "Bush Network" because of their own communications and administrative needs. Again, I suggested that he "firm up" this request through the US Army Corps of Engineers side of the house with the USAF people at Ladd AFB. I indicated to him, that as an "F" Site commander I would be happy to help him with his "HF" radio communications needs when necessary.

It is interesting to note that in this time frame, the [Alaska Communications Service] ACS used very low frequency (VLF) point to point "CW" radio communications equipment somewhere in the 21.0 kHz to 38.0 kHz range. Talking to the radio operators at Site A-1 Nome, AK., revealed that they frequently used the services of the ACS network to relay aircraft radar plot information to Ladd AFB, Fairbanks, AK. It was not uncommon for the assigned USAF high frequencies "HF" to be unusable some of the time due to radio transmission atmospheric propagation problems.

The 160th AC&W Group Communications/ Operations people subsequently gave approval for local "Corps of Engineers" Voice or "CW" message traffic on the "AC&W" Communications network. Furthermore, this traffic was given a "priority" message status and was not required to be routed through the net control station (NCS) at Ladd AFB. when and if local point to point radio contact was available.

I asked Mr. Gallagher where I could find 1/LT. Flashbaugh the MATS representative and CPT. Guedat the US Army Transportation Corps Port Commander. He said that "Flashbaugh" was out on a survey trip in the Cape Romanzof area and wouldn't be back for a week or so. Look for "Guedat" down at the dock area.

Later on that day I finally found CPT. Guedat in a building near the dock area. He was glad to see me and wanted to know if our "USAF" detachment was ready to go for the boat trip to Cape Lisburne. I advised him that we were and with several hours notice our people and their supplies could be dockside. CPT. Guedat said that he would telephone me at the A-1 radar site at Marks Field when he had the ETA for the Landing Ship Medium (LSM) and at that time we could arrange a boarding schedule. He expected that this "ship" as he called it, should dock at Nome in several days.

So, from about 15 June 1951 until the time the detachment was to leave Nome, AK. we stayed at the "ready". I had designated one of the Sergeants and we had six of them to be the "NCOIC" on a shift basis at the radar site at A-1 orderly room. Their main duty was to be waiting for the call from CPT. Guedat that our next boat ride was ready.

Just recently discovered that the US Army had a unit co-located with the USAF Detachment A-1 at Marks Field, Nome, AK., during the 1951-53 time frame. The unit was the US Army Security Agency, Detachment T-23, 333rd Communications Reconnaissance Company. I am not sure all what this outfit did, but there was a similar detachment at Site A-5, Kotzebue, AK., that monitored all of our radio message communications traffic. I guess to see if we transmitted any classified information or whatever. I also understand that these Army Detachments also monitored many of the radio frequencies used by the foreign nations located to the west.

In the meantime, the wait gave everyone a chance to have a little "R & R" in the big city of Nome, AK. Several of us wandered around the old WW-II buildings that were still standing at Marks Field. Not much of interest around the buildings.

However, across the runway were two 1930 era Ford Tri-motor aircraft still in operational condition. We talked to the pilot and the crew chief on one of the "Fords" at some length. These aircraft were being used

at that time to ferry large placer and hard rock gold mining equipment to some of the gold mines around the Seward Peninsula.

The Tri-motor pilot suggested that if we wanted to do some adventure hiking and exploring, walk along the beach of Norton Sound just west of Nome, AK. and look up to the north in the low hills. Seems that there were still some P-39 aircraft frames in the tundra left over from when the Russians augured them in during the WW-II Lend/Lease give away program.

So, off we went hiking down the beach for a mile or so. We soon realized that to go up in the tundra and brush on the hills would be fruitless. Since it was summer time the ground was very mushy and scrub brush covered most of everything. So we gave up that adventure.

Meanwhile, back at Marks Field, some of the airmen had ventured over to the north side of the field to look at the gold mining dredge. As these airmen were standing around outside the dredge taking it all in, a worker comes out of the dredge with a rifle at yells at the troops to get out of the area now or he would fire on them. Seems that the crew operating the dredge thought the airmen were going to rob the gold dredge. So much for that hike.

Several days later, WO. Jordan and I decided to walk into town to have some drinks and dinner at one of the local "Pubs". We ended up at a place called the "Bering Sea Club" which had been recommended by both CPT. Guedat and Mr. Gallagher. This restaurant and bar was located on the south side of the main street in Nome, AK. and overlooked the beach and Norton Sound. The food and drinks were outstanding.

However, while we were having our dinner we noticed that several of the airmen from the radar Site A-1 were also having drinks at the bar. But they would only have one drink, then return after an hour or so and have another drink. This made us curious so we watched the airmen went the next time they left. Where did they go? They went down to the beach on Norton Sound and panned for gold. Seems that their friend the bartender, would loan these guys a gold pan then take the gold in exchange for drinks. Some enterprising airmen I would say.

Another comical or what could have been a tragic story that I will relate was told to me by one of the NCO's at the radar site A-1, Marks Field. Seems that when the USAF had WW-II type fighter aircraft stationed full time at Marks Field, they also would get an annual resupply of aviation fuel. AVGAS in those days, 100/130 octane or so. The AVGAS storage tank facility was on the north side of the runway up the hill aways. During the re-supply in 1950, tanker barges were used to lighter the AVGAS from the tanker ship to the fuel dock at Nome. The AVGAS would be pumped from the barges through a pipeline up to the storage tank area. It was critical that when one storage tank became full then it was necessary to switch the AVGAS fuel flow to the next tank.

When the crew on the fuel barge began to smell fuel they thought that they had spilled some off the barge. Not so lucky. Apparently when one of the tanks on the hill became full, someone had forgotten to switch the fuel flow to the next tank. They apparently pumped some 10,000 gallons of fuel on the ground before they could get the system shut down.

What made the situation dicey was, that all of this AVGAS was on it's way down the hill in a small stream that ran through the town. From what I was told, the local authorities were notified of the situation and all people and "flame" was banned from the area. Several days later the AVGAS re-supply task was completed and a first class disaster was averted.



### ANOTHER BOAT TRIP.

"D" day finally arrived. Here we go again on another boat trip. I think it was late in the afternoon, about the 18th of June 1951, CPT Guedat called me and said that LSM-476 would be arriving at the Nome, AK.. Port dock in about 4 hours. The ship would be ready to load our detachment personnel and equipment in six hours or so. Be there!

With the help of some of the airmen from the radar Site A-1 and their trusty 6X6 truck, we made about four trips to the Port dock with all of our equipment and troops. The first problem we encountered was that the LSM could not get close enough to the dock with it's front doors open in order for us to load on to the cargo deck well. After several hours, CPT. Guedat was able to locate a tug boat that placed a barge between the LSM and the dock. Finally, we were able to carry all of our equipment from the dock to the barge and stow and secure all of our gear in the cargo deck well of the LSM.

We began what ended up as a 495 statute mile cruise on LSM-476 to the Cape Lisburne, AK. F-7 radar site about midnight, 18 June 1951. Of course at this time of year it was still fairly light outside. The actual boat statute miles by sea from Nome, AK., to Cape Lisburne, AK., is only 345. Why the extra 150 mile addition? You will find out later on in this story of adventure on the high seas.

The LSM crew were all MSTs civilians either out of the Seattle, WA., POE or the Kodiak, AK. Navy/Coast Guard Base. I never did find where the LSM came from. Well anyway, we were under way again. Good, bad or otherwise. The airmen were quartered adjacent to the boat well deck and since there weren't enough bunks for all, some of the airmen used the fabric cots that had been issued to us from Base Supply at Ladd AFB, Fairbanks, AK. These cots were for our use when we set up our Detachment quarters at the Cape Lisburne radar site. I ended up sleeping on a cot in the wheel house.

The food on this "bucket" was fair considering that it took some time again to learn to feed yourself standing up while riding on a flat bottom ship.

Spending most of my time in the wheel house, I determined that at the speed we were going from the ship gauges was about 6 to 7 knots, so we should arrive at Cape Lisburne, AK., sometime in the afternoon of 20 June 1951. The ship driver also confirmed this ETA. Boy were we ever wrong on this calculation as you will see later in this historical military recollection saga.

The LSM was just passing the Diomed Islands in the Bering Strait when all of a sudden the ship began to hit huge chunks of surface ice flow material. The ship driver sounded all the bells and whistles and threw the LSM into reverse gear. Now we were making about 4 knots in reverse. The skipper said that we would need to go south for a while in order to let this ice flow material move past us. Once the ship was turned around the ship driver headed toward what he said would be a temporary safe haven in the Port Clarence lagoon area.

As the LSM was passing Point Spencer, I asked the Skipper what was the air strip that we could see just south of the Point? He said that was called the Port Clarence area and the air strip was an emergency landing field the Russians used and was left over from WW-II. Seems that the Russians had been using it fairly lately. The "Army Engineers" he stated, had just recently dug trenches across the runway to keep unauthorized aircraft from landing there.

The LSM kept chugging along and we finally entered the Port Clarence lagoon area. I asked the Skipper again, how long are we going to stay in this area, since our detachment on board is expected to receive

several hundred tons of electronic gear and supplies at Cape Lisburne on the 21st of June 1951. The ship driver replied that we would make our destination in time and not to worry. At the moment he said, he wanted to navigate down to Teller, AK., or Brevig Mission, AK., and go ashore to use the local "Bush Radio". He needed to obtain any information that he could get about the ice flow conditions in the Bering Strait or the Chukchi Sea. So far he was unable to contact any of his authorized Navy radio stations for this information by the use of the "HF" radio that was on board the LSM. Sounded reasonable to me.

As we cruised east towards these two "Bush villages", I asked the ship driver what the pole line over on the north shore was used for. No wires, or cross arms, just telephone poles as far as the eye could see. He indicated that at the start of WW-II, the US Army Signal Corps engineered and installed a telegraph system that was to run from Fairbanks, AK, to the City of Wales, AK., on the Seward Peninsula. He thought the system was to be used to improve overall communication reliability with the Russians. However, he was not sure if the telegraph system was ever finished or placed in use. He also indicated that the "Locals" had used lots of the poles for fire wood. Interesting, to say the least.

The time was just after noon, Bering Sea time. The sun was out and I thought it really was a beautiful day. We had just finish lunch aboard this highly modified cruse ship when all hell broke loose. The LSM in about five seconds came to a screeching halt, dead in the water.

I was sitting in the pilot house reading a magazine and was promptly thrown against the forward bulkhead, just missing the ship driver who was bent over the wheel. All of the troops from below deck along with the crew piled onto the well deck to see what was going on. The skipper had driven LSM-476 aground on a sandbar in the Port Clarence lagoon.

There we were high and dry. As I looked over the side of the LSM I could see the sandbar about two feet below the water line, amidships. The ship driver yelled for the crew to return to their stations, and again he put the LSM in a high speed reverse mode. Some of the troops went to the rear of the ship to get a better view of what was going on astern. They later told me that the LSM propellers were about half out of the water.

Now what! The skipper spent about an hour revving up the ships diesel engines both in forward and reverse in an attempt to pull the LSM off the sand bar. No joy. There we sat, dead in the water. So in desperation the skipper instructed the LSM radioman to contact the Navy radio station in Kodiak, AK. The skipper wanted MSTTS-Kodiak to send a contract civilian tug from Nome, AK., to pull the LSM off the sand bar. After several hours the ship radio operator got through with this message on "CW" to someone in "Kodiak". "Kodiak" Navy radio said to stand by on the radio and they would have a reply within 12 hours.

There we sat dead in the water. This LSM ship driver decided to take the present situation in hand and use his own ingenuity to get his ship afloat again.

The next thing I knew was that four crew members had lowered both of the life boats from the stern of the ship. I couldn't see what was going on so I walked out to the stern of the LSM. The crew members were in the process of lowering the stern anchor into one of the life boats. The skipper said that they were planning to row the life boat with the anchor several hundred yards astern of the LSM then throw the 2,000 pound anchor overboard. This was the anchor and the procedure that this type of landing craft normally used when going on the beach to land troops or equipment. If this ship driver pulled this operation off it would a miracle.

So the four crew members in the two lifeboats rowed off into sunset, so to speak. They must have gone out about 500 to 600 yards because the wire rope cable coming off the power drum winch on the stern of the LSM was about gone.

The next thing that I see is two of the crew members trying to rock the lifeboat back and forth in an attempt to dump the anchor into the water. After 30 minutes or so it was obvious that this tactic was not going to work. So out comes a fire ax and a LSM crewmen starts chopping on the lifeboat in an attempt to sink the critter. After a few minutes the lifeboat with the anchor still on board, disappears from sight in the water.

As the crewmen rowed back to the LSM they used about a 12 foot pike pole to check the depth of the water to the stern of the ship. It was obvious to note that the ship was in shallow water when one half of the pike pole stuck out of the water on each sounding.

With the four crewmen safe aboard and the remaining lifeboat secured in it's davits, the ship driver gave a signal to the crewman who was operating the power drum winch on the stern to take in the anchor. About the same time the ship captain red-lined the engines at maximum RPM and threw the ship into full reverse.

There was a lot of grinding and banging around the ship's hull, but we didn't move an inch. Seems that the stern anchor had not dug into the ocean bed yet. So the ship driver signaled the power drum winch operator to go to full max take-up RPM on the winch. The cable to the anchor started to get tight and the power winch began to smoke. When the winch cable was in a straight line to the water, the skipper again gave the ship full bore throttle to the rear. By this time the crew at the winch were poring water on the machinery to keep it from catching fire.

Inch by inch the ship was moving to the rear and in a few minutes it was picking up speed. Within 10 minutes the LSM was floating on it's own and slowly in reverse, heading out of the Port Clarence lagoon area. The ship driver had the stern anchor secured, gently turned the ship around and we were headed out to sea again. This detour into the Port Clarence lagoon had cost us about 14 to 16 hours and we were only about 75 statute miles from Nome and a day and a half later and a dollar short.

Two interesting side notes regarding our unscheduled detour: 1. All the time were in this lagoon we could see people from some distance away watching us from the shore line. I bet the locals from the village of Brevig Mission AK., wondered what was a Navy ship doing stirring up the lagoon where they fished!: 2. The radio operator aboard the LSM received a "CW" message from Navy radio Kodiak, AK. just as we were leaving the lagoon. The message gave the ship driver authority to use any commercial sea going tug that was available in the area to assist in removing the stuck LSM. However, the message cautioned that there could be up to a two week delay in obtaining the services of either a commercial or Navy tug in that vicinity. Seems that all available sea going ships and tugs were supporting the sea re-supply effort for the near by Alaska radar sites presently under construction.

Away we went. Into the Bering Strait, past the Little Diomed Island AK., again [we waved to some locals we could see at Diomed City AK., and they appeared friendly and waved back] and into the Chukchi Sea. I am quite sure the local Russians on the Big Diomed Island, USSR, were also monitoring our progress.

The ship driver set a course for LSM-476 North by Northwest so to speak, out into the Chukchi Sea at a speed of some six knots. The sea was choppy and the wind was gusting to 35-40 knots. Once and a while a rain squall or two. We had some 215 statute boat miles to go to reach the radar construction site at Cape Lisburne, AK. At this speed we were not sure if we would arrive at our destination on the designated day of 20 June 1951.

As we sped north towards our destination the ship again frequently encountered moderate sized chunks of ice in the ocean. The ship driver tried to maneuver the LSM in order to avoid these hazards but to no avail. About every 3-4 minutes the ship would hit one of the bigger chunks of ice and then the old rust bucket would shiver and shake from bow to stern. After one heavy collision with an ice cake we noticed what we thought was water coming in the well deck. Turned out that an "ice cube" had punctured one of the diesel fuel tanks on the LSM and that was diesel oil coming up on the well deck.

The ship driver said not to worry that the LSM would stay afloat. My concern was about all of the cargo we had tied down in the well deck. Several of the NCO's and airmen checked out the status of our cargo and re-stacked many cardboard boxes higher in the pile.

Late in the afternoon of 21 June 1951 we spotted what we thought was land again. It was rather difficult to determine where the land started because of the 100-200 foot high fog that covered the entire area. The ship driver said that we should be passing the village of Point Hope, AK., in an hour. So we did. We also could see the local people waving at the LSM from the Point Hope area. Some three hours later, the LSM rounded Cape Lisburne, AK., and we spotted what was to be home for most of us for the next year.

**Personal recollections of George Tanner, Col. USAF (Ret.), 445 Parquet Street, Sebastopol, CA 95472.** George Tanner, then a Major, was the base commander in 1952-53. While Col. Tanner has a wealth of information on the base, unfortunately he is in ill health and consequently was able to provide only limited information. An interesting event in this time period was the attempted defection to the Soviets of an AWOL soldier from Fort Riley, KS. He had managed to elude capture over the several thousand miles from Fort Riley to the Seward Peninsula but was apprehended in a small boat near Nome. There was a fighter outfit at Galena, but in 1952-53 Nome Field and Galena were separate commands. Col. Tanner visited Nome circa 1996.

**Personal recollections of William H. Greenhalgh, Jr., Lt. Col USAF (Ret.), 816 Haggerty Road, Wetumpka, AL, 36093-3316.** William Greenhalgh, Jr. commanded the 5004<sup>th</sup> Air Intelligence Service Squadron based at Elmendorf AFB. During that period the squadron had a small detachment based at Marks Field. After base closure in November 1956, it was the only Air Force unit based there. Bill spent considerable time at Marks Field on visits to his small detachment and learned a bit about the base.

I was assigned to the 5004th Air Intelligence Service Squadron from October 1953 until August 1957. For the first three months I was the Operations Officer, but early in 1954 I assumed command when the preceding commander returned to the States. During my entire stay with the squadron we maintained detachments at Eielson AFB, Ladd AFB, and Nome. The Nome detachment had intelligence personnel living in Eskimo villages from Kotzebue to Unalakleet, on Little Diomed and King Islands, and at Gambell and Savoonga on St. Lawrence Island. We later dropped the Savoonga and King Island locations because of the great difficulty of reaching the personnel in case of serious emergency.

From the detachment at Nome we maintained a twice-daily radio schedule with all of the locations. We resupplied and visited the Gambell location by C-47, usually flown by my own officers from Elmendorf AFB, where my headquarters were located. We reached the mainland sites by bush plane, under contract to the squadron by Willie Foster. Little Diomed was resupplied by the Native Service ship each summer, and in the winter Willie Foster flew to the island in his little Stinson and landed on the solid ice between the two islands. It was not an easy system to operate, but we did quite well. I landed in some pretty difficult spots with Willie Foster, but had the utmost confidence in him.

The Nome detachment was housed in two of the little Quonsets to the west of the main Administration building. One was used for quarters for the four or five men assigned to Nome, and one was the office, supply room, and radio room. In 1954 the Detachment Commander was Captain John Wright, as best I can recall, but I do not remember the names of subsequent commanders. They all were well-known in Nome and did an excellent job of keeping us informed of events along the west coast of Alaska. The officer lived in the BOQ area of the large Administration building, while the men lived in the one Quonset. In the early period I stayed in the same area and ate in the mess downstairs, and on two occasions remember sitting in the lounge upstairs and listening to Father Tom Cunningham tell tales of his experiences with the Eskimos. In later years I stayed in a room in the hangar lean-to. When the Nome Field unit closed, everyone ate with the M-K mess hall on contract, but I forget where the men lived.

You mention meeting an old friend, Lt. Marshall, who was operating with Operation Beachcomber. Each summer we put together five teams, each with one officer, three enlisted men, and two Eskimo guides with a large skin boat. Walking in teams of two for safety, the pairs leapfrogged each other, walking eight to ten hours each day, and searching the beach for flotsam and jetsam from Siberia. We picked up some quite valuable items, but at the same time the men gained experience operating in the western portions of Alaska. We covered the beaches northwest of Kotzebue, adjacent to Shishmareff, from Nome to the northwest and on both shores of St. Lawrence Island. While the operation was in progress, I operated from Nome with a C-47, covering all teams once a day and making certain that all was well. You should have known of our presence during the summer months, because I am certain that we were a burden to the base people.

I well remember the base theater, having attended several movies there. At that time the audience sang *Squaws Along the Yukon* and other similar songs with great gusto before and after each movie.

You refer to the Army 333 Communications Reconnaissance Company Detachment T-23 at Gambell. It was situated some distance from the village, against the foot of Mt. Sevuokuk, the mountain near Gambell. Occasionally, one or two of their men would slip away from the installation, disregarding orders, in search of female companionship from the girls in Gambell. My man in the village for most of the period, Bill Caldwell, would strap on his .357 Magnum revolver, take the men into custody, and march them back to their base. The village elders of Gambell, their only government, repeatedly asked him to take on such chores, and he did so gladly because they were his good friends and were of great help to us.

You refer to the downing of a Navy *Neptune* patrol aircraft by Soviet Mig's. That afternoon I was at Nome with a C-47 flown by my Operations Officer, my Field Operations Officer, and my Language Officer. We were filing a flight plan for a return to Elmendorf when we were told that an aircraft had crashed at Gambell. We then changed our flight plan and took off at once for Gambell. When we arrived over the site we saw two skin boats down the coast from Gambell at the site of the crash. The pilot had known of the strip and wanted to reach it, but as he approached the island a rain squall hid Gambell from his sight and he crashed as near the village as possible. My man in the village took a skin boat and crew, and the village nurse took another, and they went to the crash scene at once. They brought the surviving crew to Gambell, where we had landed. I had as much of the details as possible sent by classified message by my man to Nome and relayed to Elmendorf, while we interrogated the crew. We loaded the injured and shocked crew members into our aircraft and flew them to Nome. There they were taken aboard larger aircraft that had landed with medical personnel aboard. We finished our check of the crash scene and returned to Elmendorf. I immediately dispatched one of my field teams to fully examine the wreck and derive such information as the angle of projectile strike, types of bullets used, and so forth. Two weeks later we had to dispatch another team to blow up and bury the remainder of the wreckage to keep the young men from Gambell from injuring themselves by salvaging explosive ordnance left in the wreckage.

From my first trip to Nome from Anchorage in 1953 until I left in 1957, Alaska Airlines made a daily round trip to Nome with DC-3 type aircraft, stopping at McGrath and Unalakleet both ways.

The city field was a dirt strip situated on a North-South alignment. It was rough, but that is where Willie Foster kept three Stinson aircraft, one of which was to be on call for our use 24-hours per day.

You mention Operation *Hide-Out*. The caches you mention were built and outfitted in several parts of Alaska. In 1957 I was given the task of withdrawing much of the installed supplies and converting the caches to emergency rescue caches wherever possible. Some of them had sunk into the permafrost, but some were in perfect condition and could have supported a number of people for an extended stay.

You mention the crash of an L-20 that killed the Commanding General of the Alaska Army National Guard. That day there was a white-out in the Nome area and the pilot of the L-20, new to the area, talked with Willie Foster and other local bush pilots. All of them said they were staying on the ground until it cleared. The Army pilot decided that he could get through and took off. It was a long time before the condition improved enough to permit an aerial search.

You talk about a dentist Dr. Kennedy. I was very familiar with Dr. Kennedy and he thought of himself as one of my informants. I remember that he gave me some silver strands that he had picked up on a sandbar while on one of his flying trips into the boondocks. It was chaff dropped by one of our aircraft to confuse the Soviet radars, but I didn't dissuade him by telling him that. I couldn't afford to turn off anyone who wanted to be of help, because you never knew when one of them would come up with something valuable. Intelligence is made up largely of little bits and pieces that fit into a large picture like a jig-saw puzzle.

As I indicated earlier, near the end of my tour I had my men at Nome eating with the M-K mess. I ate there several times while in Nome and was astounded by the volume and quality of food at each meal. I became concerned that the men were eating too much and exercising too little, but they seemed to be able to handle the situation.

We had two-way telephone communication between Nome and Elmendorf, and never had any difficulty getting through. We did have an arrangement with the telephone people in Nome to give us priority if or when we asked for it, but we never abused that favor.

In 1956, General Acheson decided that he wanted to test the security of his bases while they were under the pressure of an exercise or other increased security condition. He discussed it with me and decided to start with Nome Field. When an exercise for the Air Division was scheduled, he gave me the go ahead. We reserved rooms at the hotel in Nome and sent two of my best men in civilian clothes to Nome. At the appropriate time they planted simulated bombs on the power plant, fuel storage tanks, and other key facilities, putting the base out of operation for the duration of the exercise. We subsequently did an even more thorough job of simulated sabotage on Ladd, Elmendorf, and the Navy Base at Kodiak at the request of the Navy base commander.

A different type of incident that will not have any impact upon your work but might be of interest took place in 1956. The new German ambassador to the United States asked that he be given a tour of Alaska because it was part of his area of interest, and I was assigned to conduct the tour and make all of the arrangements. Dr. Heinz Krekkler was an American educated chemical engineer and a very intelligent, pleasant man. After showing him two days of sights around Anchorage, on a cloudy Sunday morning we took off for a stop at Kotzebue, where the King Island natives were to put on an Eskimo dance and Mr. and Mrs. Jack Bullock of B&R Barge Lines were to have him for a dinner meeting with some of the other

residents of Kotzebue. We landed on the dirt north-south strip at Kotzebue due to a very strong wind aligned with that strip. While the Ambassador and his aide were having dinner, my man in Kotzebue came to get me and to advise me of a small disaster. Someone flying a civilian C-46 without a co-pilot had tried to land on the east-west paved strip and lost control. He swerved into our C-47, cutting off the entire tail section, and then plunged off the end of the runway into the bay. We were scheduled to take the Ambassador into Nome that evening for a reception and dinner and a stay at the hotel. We found quarters for the Ambassador in the house allocated to the doctor, who was away in the States, and I slept in the attic of the Native Service hospital. The aircraft crew slept on the floor of the FAA building. The following morning at dawn there were two C-47's circling overhead and we departed Kotzebue shortly thereafter for Nome. They arranged a tour of one of the gold dredges, a tour of Nome and vicinity, and luncheon before we departed for Fairbanks. It was a rather hectic experience, but the Ambassador expressed appreciation for a most unusual tour of Alaska.

**Personal recollections of James W. Williams**, 13232 Ranchwood Road, Tustin, CA 92782. Jim was stationed at Ladd AFB from December 1954 to September 1955 and was stationed at Nome Field from September 1955 to September 1956. He also served infrequent assignments at Galena. Jim was a First Lieutenant at the time. For most of this period, there were two officers at Nome Field: Lt. Williams and Major James D. Kell. Maj. Kell commanded the 5003<sup>rd</sup> Air Base Squadron at both Nome and Galena. He rotated out of Alaska circa early May 1956 and was replaced by Maj. Robert J. Cahill who was commander of the 5003<sup>rd</sup> Air Base Squadron but was stationed at Galena, not Nome. Lt. Williams remained as detachment commander at Nome until September 1956. From approximately mid-May to September 1956, Jim was the only officer at Nome Field and probably was the last officer to be permanently stationed at Nome Field. Jim was a reservist and upon his release from active duty to the reserves, resumed his civilian career as a petroleum engineer and civil engineer.

Much of the literature refers to the military installation at Nome as Marks AFB, named for Major Jack S. Marks, who was shot down and killed over Kiska Island in 1942 (Ref. 1-page 174). However during 1955/56 I was unaware of the name Marks AFB; the military installation was known as Nome Field at that time.

Your first impression upon arriving at Nome Field was that it was a very depressing looking place. Structures were scattered over a large area. In the summer dust and mud were prevalent and in the other nine months snow was prevalent, drifting to the roof lines of many buildings. The buildings were unpainted, badly weathered, unmaintained, and forlorn looking. The buildings looked to be 100 years old, but in writing this history I've learned that they were only about twelve years old at the time. Many buildings were vacant and boarded up. Nome Field looked like the air base of a third world nation; unlike any U.S. base that I've seen before or since. The typical airman arriving for a tour of duty at Nome Field thought it was somewhere near the end of the earth or perhaps on another planet, forsaken even by the Air Force. The remote AC&W sites looked absolutely luxurious compared to Nome Field.

However, first impressions are deceptive and it soon became apparent that Nome Field was an active airbase with most of the activities of a much larger facility. The typical garrison circa early 1956 consisted of about 120, including 15 civilians, AFRS, and Anvil Mountain Radio Relay.

The primary activity was refueling aircraft, providing a place where aircraft outbound to the AC&W air strips or other sites could wait out weather, and offloading cargo from the larger aircraft that could use Nome Field and storing it until it could be reloaded on smaller aircraft bound for the AC&W air strips. Supporting activities included:

## History of Military Airfield at Nome, Alaska

- Utility operations. The base provided its own heat, power, water, sewerage, maintained the buildings, and petroleum system, and roads. The power plant had three 300-KW generators powered by large, low rpm industrial diesel engines. The boiler plant had, as I recall, four large boilers. Operations were supported by a first class carpentry shop and a welding/plumbing shop.
- Fire protection. A separate fire department was equipped with a structural truck and a crash truck.
- POL. As best I can recollect, there were perhaps six above ground steel storage tanks of several hundred thousand gallons each concentrated in a single location, perhaps ten or more underground tanks of 25,000 gallon capacity scattered all over the present and former(i.e. World War II) base, and a large drum storage area. Inventories were maintained in diesel fuel, 100/130 avgas, 115/145 avgas, JP-4 jet fuel, 86 octane motor fuel, and lubricants.
- The large Birchwood hangar (approximately 200'x200') supported aircraft operations.
- Motor pool equipment consisted of D-8 caterpillar, D-6 caterpillar, structural fire truck, O-10 crash truck, 4,000 gallon fuel tractor/trailer, 5,000 gallon fuel tractor/trailer, two fork lifts, hydraulic crane, grader, ambulance, a 6x6 truck, two 4x light trucks, a weasel, and two jeeps. Other vehicles, assigned to the Anvil Mountain Radio Relay were supported by the motor pool.
- Communications. Two cryptographic machines provided communications with nearby facilities, Ladd and Elmendorf.
- Mess hall, theater, medical dispensary, and transient quarters provided support for the base personnel and transients.
- Supply
- Support of AFRS
- Support of Anvil Mountain Radio Relay

A small air police detachment provided security and manned the sentry shack at the base gate until circa October 1955 when the base was opened without security. Until late in 1955 the base staff included a doctor and a chaplain for support of Nome Field and AC&W sites. Venereal disease had a seemingly unusual annual cycle. By the spring of each year VD was at low ebb. When the sea ice went out, the sailors arrived and with it came VD to the military and segments of the civilian population of Nome. Once the Bering Sea froze over, Nome returned to its isolation and the VD was brought under control.

Commercial airlines used the runway and had their own small terminal. The CAA maintained the runways and cleared snow. Regular service was provided by Pan Am, Alaska, and Weim. Flights were available to both Anchorage and Fairbanks. Commercial aircraft were the civilian equivalent of the C-47. As I recall, flights to Anchorage and Fairbanks were on the order of two times per week. All other aircraft used the city field, not Nome Field.

Nome Field was considered a hardship assignment; no dependents were allowed and the tour of duty was limited to one year. However, morale was generally high at Nome Field in 1955/56. Being a small facility, it was easy for the airmen to see the importance of their individual efforts to the mission. Another contributor to the high morale was the infrequent KP duty for airmen at Nome Field. Any airmen in or outbound to AC&W squadrons, after twenty-four hour layover in the transient barracks was assigned KP duty. The weather being what it was, layovers in excess of twenty-four hours were common. These morale pluses were offset by the morale negatives of isolation and lack of mobility. Whether the sum of the positive and negative factors was a positive or negative net result depended on the attitude of each individual. Despite the generally high morale, there was a cult-like minority who seemed preoccupied with being unhappy about being at Nome Field. These folks never unpacked their bags for the entire year and usually had a sheet of paper posted on the wall with 365 days shown so that they could count them down by marking one off each day.



I didn't realize it at the time, but in hindsight the short one-year period of assignment had some interesting unintended results. No airmen at Nome Field seemed to know anything of the rich history of the base or of the units stationed at the base. Every one seemed to live in the present and had no knowledge of what had happened even the year before. I did not recognize this as unusual at the time but now see it in a different light as I've come to understand the importance of unit and base history. I believe the short one year assignment created this environment. There was no continuity to pass along unit history; no one to know what happened last year. Perhaps this even explains, in part, how the history of Nome Field has become such a black hole.

Air Force people stationed at Nome in the period of 1955-56 understood that we were on our own should war break out; that no effort would be made to relieve us or supply us. However, I never saw any orders or documentation to this effect and there was no special stockpile of supplies to sustain the garrison. Section 5.0 of this history, mentions that the narrow gauge railroad used in mining days and rehabilitated by the Army during World War II was planned to be used for evacuation to Salmon Lake (Ref. 17, pg. 175). However, by 1955 the railroad was no longer in use by the Air Force. Anyway, it is not clear what purpose would be served by an evacuation to Salmon Lake, especially via a highly visible railroad.

Nome Field had a basketball team. Practices were held in the gymnasium, which by that time was a boarded up abandoned building. Electrical power was temporarily restored. Before each practice it was necessary to sweep out snow which drifted in through the boarded up windows and aircraft heaters were fired up to kill the cold. Nome at that time had a basketball league and games were played at the high school. As I recall, the teams were the Air Force, National Guard, Signal Corps, Nome Merchants, and the Nome High School Nanooks. The season was divided into two parts and I believe the Air Force won the first half and was runner up to the Nome Merchants for the second half. The high school had no other high schools to play; the nearest high school may have been Fairbanks, 550 miles distant. In March 1956 the high school went to Anchorage for the State high school tournament. There they were to meet their first high school opponents. They returned home to Nome as the new State champions. This was a source of great pride to all and speaks well of the talent level in the Nome league.

Aircraft operations consisted of refueling, on loading and off loading of cargo and passengers, and layovers for better weather. Only the east-west runway was in suitable condition for aircraft. The north-south runway was closed because of its poor condition. Frost heave on the east-west runway was so severe that I can recall following another jeep down the runway at a distance of perhaps 200 feet and the jeep would repeatedly disappear as it went into the trough between frost heaves and then reappear again as it crested a frost heave.

Refueling of aircraft was accomplished from the two fuel tractor/trailers with the O-10 crash truck standing by. For one period of about two weeks, in mid-winter, one of the fuel trailer pumps was out of commission for parts and refueling operations had to be done by a small rotary pump that pumped probably on the order of a few gallons per minute and was hand cranked by airmen who took turns whenever required by fatigue or the cold weather.

At another point in the late winter of 1956, Nome Field ran out of 100/130 avgas. No doubt this was a result a failure to resupply by Mona Lisa because it was believed the base would be closed. It was decided that a KC-97 aerial tanker would be flown to Nome Field to replenish our supply. The KC-97 landed fully loaded with fuel on the runway that had frost heave severe enough to hide a jeep. For the KC-97 crew, this was an experience that they didn't wish to ever repeat; their faces were as white as the snow. After the aircrew settled down from their landing, the fuel trailer was positioned by the KC-97 and filled through the

KC-97s refueling boom. This may have been the first and only time, anywhere, that a KC-97 filled a tractor/trailer.

Diesel fuel was used for heating, power generation, and for vehicle fuel. In mid-winter 1956 the diesel supply at the Anvil Mountain Radio Relay site ran low and needed replenishment. In winter the site was accessible only by weasel. However, the resupply required use of one of the fuel tractor/trailers. Therefore, a snow road was built from Nome Field to the top of Anvil Mountain. This occupied both D-8 and D-6 crawler tractors for about a week in difficult weather. When the snow road was sufficiently compacted, both crawler tractors were cabled to the trailer and successfully pulled the trailer to the top of Anvil Mountain.

There was an extensive pump and pipeline system connecting the scattered fuel storage tanks. While transferring fuel during the winter of 1956, unknown to the Air Force a pipeline leak developed spilling hundreds of gallons onto the tundra several miles north of the airfield. What was interesting was the resourceful nature of the local populace. They discovered the leak and began to collect the fuel in buckets and barrels. Before we knew it there were dozens of people taking advantage of the leak. It turned out to be a most effective leak detection and spill cleanup system. The fuel was unable to percolate downward because of the permafrost and collected in low pockets in the tundra within a few hundred feet of the leak where our civilian "volunteers" completely cleaned up the spill.

There were seventeen civilian employees at Nome Field. All were in utility operations and constituted about half of the staff in utility operations. They were a hard working, capable and loyal group and were largely responsible for keeping the base in a sufficient condition that the airmen could carry out their mission. As I recall two worked in the carpenter shop, two in the welding/plumbing shop, three in power generation, and the rest in the boiler room. The supervisors were especially valuable: Frank Cowden (carpenter foreman), Hans Arp (heat and power foreman), and Wilson Russell (general superintendent).

A major utility problem was the corroded condition of the condensate return lines. A low percentage of the condensate was returning to the boilers causing a large percentage of makeup water to be used in the boilers resulting in a major scaling problem. During the winter of 1955-56 one of the boilers was down almost continuously for retubing. As retubing of one boiler was completed and it was placed back in service, retubing of another was begun. Retubing of boilers is a hot, physically demanding, difficult, nasty job. I learned a lot of respect for the civilian boiler makers.

The water supply intake was a crib located in the Snake River behind the boiler house. Normally the river froze to a depth of about six feet, leaving free-flowing water below the ice at the crib location but at one point in the winter of 1956, the Snake River froze to the bottom at the crib location shutting off the water supply. Several difficult days were required to cut and steam thaw the ice and re-establish a temporary water supply.

In mid-winter 1956 orders were received to immediately rehabilitate a temporarily abandoned building for some unspecified urgent use. Ladd AFB provided high priority to obtaining a forced air furnace. The rest of the base was on steam heat supplied to each building by underground utility ducts connected to the boilers. However because of the poor condition of the condensate lines (see earlier discussion) there was no spare capacity and a forced air furnace was necessary. Upon completion of the rehabilitation, a C-124 arrived from Guam with the new unit and its equipment. They had left tropical Guam in the morning and arrived at Nome later in the day, in mid-winter with no arctic gear what so ever. This seemed rather strange, as was the urgency of their redeployment, and the secret nature of their mission. The detachment had a staff of about twenty as I recall and was headed by a Captain Roche. It was obvious from the

antennas and equipment that their mission had to do with communications but that was as much as we learned. They stayed at Nome Field for perhaps two months and then left as suddenly as they arrived.

In January 1956 John R. Noyes, the commanding general of the Alaska National Guard, with three companions were inspecting National Guard units on the Seward Peninsula. Weather was poor and when they became overdue on a flight from Shishmaref to Nome, an extensive search and rescue operation was directed by the Alaskan Air Command out of Nome Field. There were no clues to their location and the search was conducted over a wide area. It was one of the largest search operations ever conducted in the arctic. On the fourth day, in sparkling clear weather, the plane was discovered only about ten miles northeast of Anvil Mountain and in clear view (in good weather) of the Anvil Mountain antennas. All four men had survived the crash but were injured. However, General Noyes died shortly after rescue (additional information may be found in Section 5.0 of this history).

On 3 April 1956, a fire totally destroyed the Anvil Mountain Radio Relay site. The Alaskan Air Command described the fire as "disastrous". Voice communication between the Combat Operations Center and three outermost AC&W sites was lost. Restoring the Anvil Mountain Radio Relay became probably the highest priority in the Alaskan Air Command. The radio relay airmen and technicians were relocated to Nome Field. Temporary measures by the radio relay airmen restored partial service, out of Nome Field, in twenty-four hours. Nome Field was tasked with restoring the Anvil Mountain site as soon-as-possible so that replacement electronic equipment could then be installed by the radio relay airmen and technicians. However, Anvil Mountain was still relatively inaccessible because of deep snow. Therefore two large sled mounted wanigans (sled mounted shack) were proposed to be constructed at Nome Field, one for generators, and one for electronic equipment and an operations shack. After construction by Nome Field, they would be outfitted with electronic equipment by radio relay airmen and technicians and towed by crawler tractors to the Anvil Mountain site. The sleds and wanigans were designed in a few hours, entirely by feel and experience without support of calculations, based on radio relay needs and local experience in sleds and wanigans as used for mining operations, and a materials list was prepared. Materials for the sleds were not available locally and became a priority supply issue for the Alaskan Air Command. Supplies were airlifted to Nome Field within twenty-four hours and work began immediately. As I recall, the sleds and wanigans were completed, equipment installed, sleds moved to the Anvil Mountain site and full service restored in three weeks.

In early April 1956, Dr. Kennedy, the Nome dentist and a local bush pilot, reported a suspicious object had been sighted in the interior of the Seward Peninsula and offered concern about possible Soviet activity. It was determined that it should be investigated and I flew with Dr. Kennedy in his two seater to check it out. The object was located in the general direction of Salmon Lake and Mount Osborne. The only suitable landing site was high on a mountain talus slope and from there we snowshoed down to the suspicious object. The object was covered by a tarpaulin and the top of the object projected a few feet above the snow. Further investigation revealed that under the tarp was a weasel of the type used by U.S. armed forces. Although ownership was unknown, we satisfied ourselves that it did not involve Soviet activity and returned to Nome. Although I was not aware of the "Forlorn Turkey" (Section 4.2 of this history) rescue at that time and did not discuss it with Dr. Kennedy, I believe it is likely that he is the Dr. Kennedy mentioned in accounts of the "Forlorn Turkey". Approximately one week after our search, Dr. Kennedy committed suicide, for reasons unknown to me.

Mona Lisa was the annual seaborne resupply of the AC&W sites and resupplied Nome Field as well. The principle resupply item for Nome Field was fuel. As with all cargo for Nome, cargo was moved by barge from ships lying offshore to the shallow draft harbor at Nome. The Air Force had a pump station in the harbor and pumped from the harbor to the main tank farm or other scattered tanks. The landmark

suspension pedestrian bridge crossing the Snake River between Nome and Nome Field was actually a pipeline bridge with the pipeline covered by decking for pedestrian use. Mona Lisa provided a new and harrowing experience for the author. After delivery of the fuel, it was necessary that the detachment commander sign for the delivered fuel. This required boarding the tanker to sign the cargo manifest. That day the weather was rough and there were ocean swells that seemed like twenty feet from trough to crest. The tanker, being of sufficient length to cover several wave lengths, rode fairly stable without too much up and down movement while the tug bobbed like a cork with a twenty foot up and down motion. A rope ladder was the means of transfer from tug to tanker. In order to board the tanker, it was necessary to grab the rope ladder while the tug moved up and down through a twenty foot range. To me it seemed to require the skill of a circus trapeze artist. It was difficult enough to time it just right to grab the ladder but a bigger concern is what would happen if you missed the ladder and fell between the tug and the tanker where it was obvious you would be squashed like a bug. After several attempts I managed to grab the ladder. The climb up the ladder was easy but the inescapable thought was after signing the manifest how would you get back down the ladder and successfully drop onto a tug that was cycling up and down twenty feet relative to the bottom of the ladder. By the time I reached the top of the ladder I was so distracted that I forgot to salute the officer of the deck. The above is all probably routine to the Navy guys and no doubt the efforts of that Air Force officer were good for several weeks of retelling and amusement aboard the tanker.

In the spring of 1956 it was decided by Alaskan Air Command to consolidate operations in to a smaller number of buildings and close the mess. Morrison-Knudsen was contracted to renovate portions of the Birchwood hangar for housing and mess facilities. Thereafter Air Force personnel ate at the M-K mess hall. M-K found it difficult to recruit construction workers for a remote arctic installation. Besides pay, one of the recruiting inducements was the food. The M-K operation was no doubt a cost-plus operation because no cost was spared at the M-K mess. The finest food was flown in daily in chartered planes. There seems little doubt that we had the best food in the Air Force. As I recall, the charge to the Air Force was \$6/meal, a considerable sum in 1956.

One day in July of 1956, I was told that there was an Air Force officer looking for the detachment commander. Who should walk in but a guy I went to grade school with in a little village of 850 people back in Wisconsin. Imagine the coincidence of walking into a place such as Nome Field, checking in with the detachment commander and finding it is someone you knew from grade school. It turned out he was Operation Driftwood, at least was Operation Driftwood in this part of Alaska. Operation Driftwood involved placing lone intelligence officers on the beach with the objective of walking the entire beach in western Alaska looking for any information that could be gained from objects washed up on the beach. His name was Lt. Marshall and he had been educated at Stanford in Russian studies and Russian language. After weeks of lonely trudging the beach, Nome must have seemed like a carnival.

In 1955-56 there were still two abandoned six-inch naval guns in emplacements south of the Snake River. A memo from the McLain museum to the city manager states that two six-inch naval guns still existed in 1985 but I was unable to locate them in 1997.

There were opportunities to hitch rides on planes from Nome Field to the remote sites. It seemed strange to me however, that the airmen at Nome Field did not see this as an opportunity and, so far as I recall, I was the only one to take advantage of the opportunity. I was fortunate to visit all three of the AC&W sites several times each, including a crash at Cape Lisburne, plus Gambell, Kotzebue, and Point Barrow.

I thought at the time that being stationed at Nome was a fantastic opportunity and looking back on it I think it was one of the highlights of my lifetime. Every recollection of that time and place is strongly positive and I am very thankful to have had the opportunity.

Photos from the 1955-56 period begin on the next page.

**Figure 61** shows Nome Field, April 1956, from about a mile north of Nome Field looking south towards the Bering Sea. Beyond the dredge and tailings (foreground) are abandoned hangars and fire station on the north side of the east-west runway. The active base is south of the east-west runway. At the left center (approximately one-inch) above the dredge is the headquarters building (aka the administration building) the Birchwood hangar is the large structure on the right. The main part of the base lies between the headquarters building and the Birchwood hangar. The Snake River is the lazy figure S through the middle of the photo. Across the Snake River on the left are warehouses, POL, power house, and AFRS. The Bering Sea begins at the far end of the warehouse area. Near-shore ice is smooth and indistinguishable from snow covered land; farther offshore the sea ice has a darker texture caused by pressure ridges.

**Figures 62 - 65** are an overlapping sequence showing Nome Field looking towards the west taken in short daylight hours about mid-day in January 1956. **Figure 62** looks across the Snake River at the warehouses and POL storage. The pipeline/pedestrian suspension bridge is in the middle foreground. AFRS and it's antenna are about one-inch from the right margin. **Figure 63** overlaps **Figure 62** and shows AFRS, the power plant, additional storage, and the gymnasium (large structure about one-inch from right margin). In the distant background is Sledge Island. **Figure 64** overlaps **Figure 65** and shows the east-west runway and abandoned hangars and fire station on the north side of the runway. Underground POL storage vents are visible in the foreground at the edge of the shadow. **Figure 65** overlaps **Figure 63** and shows gymnasium, more warehouses, the bend in the Snake River, and the Snake River highway bridge. The main area of the base is perpendicular to the axis of the photo and is not easily visible except for the Birchwood hangar (left center). The east-west runway and the road connecting Nome Field to Nome are visible at right.

**Figure 66** shows the pipeline/pedestrian suspension bridge over the Snake River, circa July 1956. AFRS, the power plant, gymnasium, and other buildings are visible. Note the differential settlement at the east abutment caused by permafrost; just upstream pilings from an earlier bridge are visible.

**Figure 67** is the headquarters building (aka administration building) circa June 1956. It was the BOQ in the 1940s. In 1955 it was the mess hall, and officer's quarters. By early 1956, it was the mess hall and quarters for officers and airmen.

**Figure 68** shows the boiler house circa September 1955.

**Figure 69** looks across the Snake River at the boiler house and the Birchwood hangar circa February 1956.

**Figure 70** shows AFRS April 20, 1956. The suspension bridge and path to Nome are at the right center.

**Figure 71** shows the apron north of the Birchwood hangar circa July 1956. A C-124 (Globemaster) is at right, a C-119 (Flying Boxcar) is at left, and a C-47 (Gooney Bird) is behind the C-119.

**Figure 72** shows a D-8 cat clearing snow from the hangar apron circa March 1956. For scale, the D-8 was the largest crawler tractor made at that time; the snow bank is probably twenty feet high.

**Figure 73** shows snow accumulation by the road from Nome Field to Nome circa late March 1956.

**Figure 74** shows a D-6/D-8 cat train towing fuel to Anvil Mountain (background) circa February 1956.

**Figure 75** shows Anvil Mountain Radio Relay circa February 1956. The fuel trailer is shown in the shadow below the middle antenna.

**Figure 76** shows a C-124 refueling and off loading White Alice contractor equipment circa April 1956.

**Figure 77** shows the Little Creek station on the Curly Q railroad (aka the Wild Goose railroad) circa July 1956. Little Creek was a mining camp not far from the location of the Moonlight Springs satellite airfield. Anvil Mountain Radio Relay is visible at upper right.

**Figure 78** shows work on the equipment sled circa April 15, 1956, one of two sleds constructed to restore operations after fire destroyed the Anvil Mountain Radio Relay Station. Shown working, left to right, Issac Eben, Nick Ezukameow, Wilson Russell, and Frank Cowden.

**Figure 79** shows work on the sled framework and runners circa April 15, 1956. Shown are (first name not recalled) Scott (welding) and Wilson Russell.





Figure 63

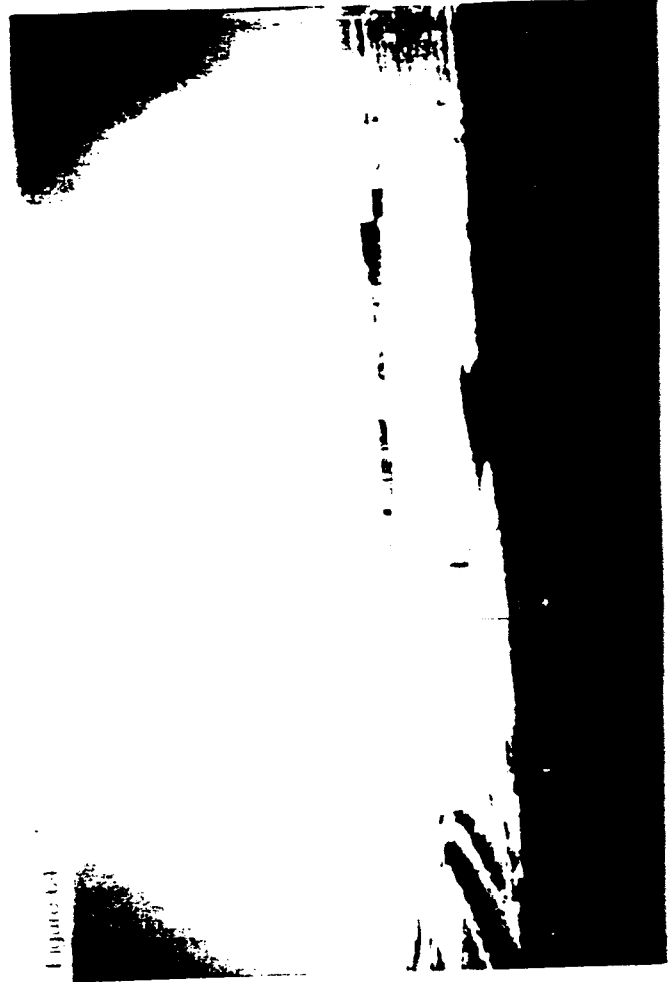


Figure 64



Figure 62



Figure 65

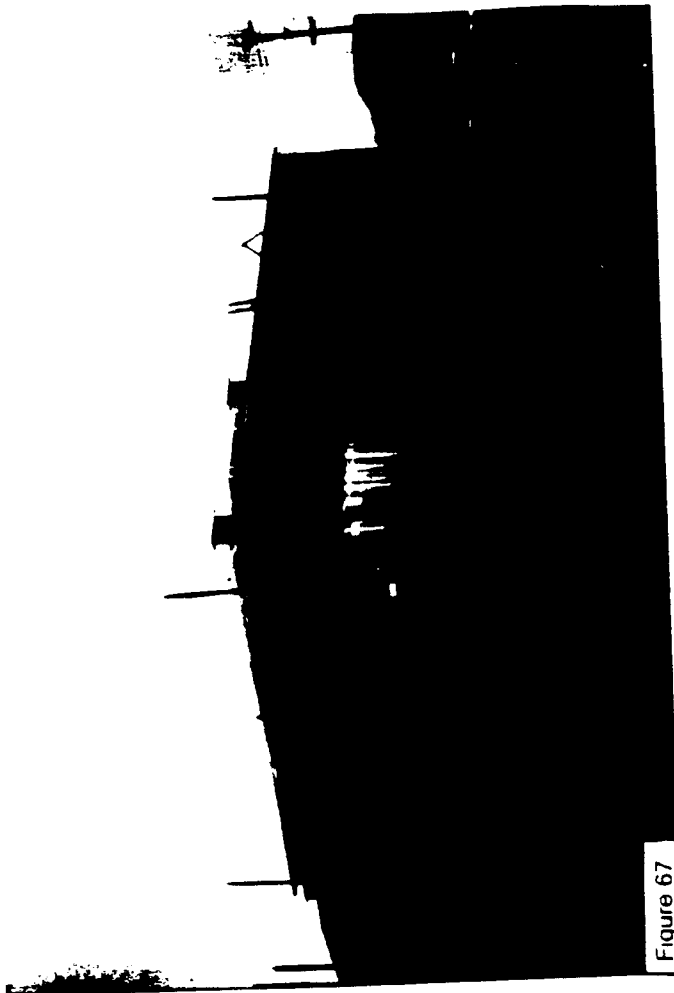


Figure 67

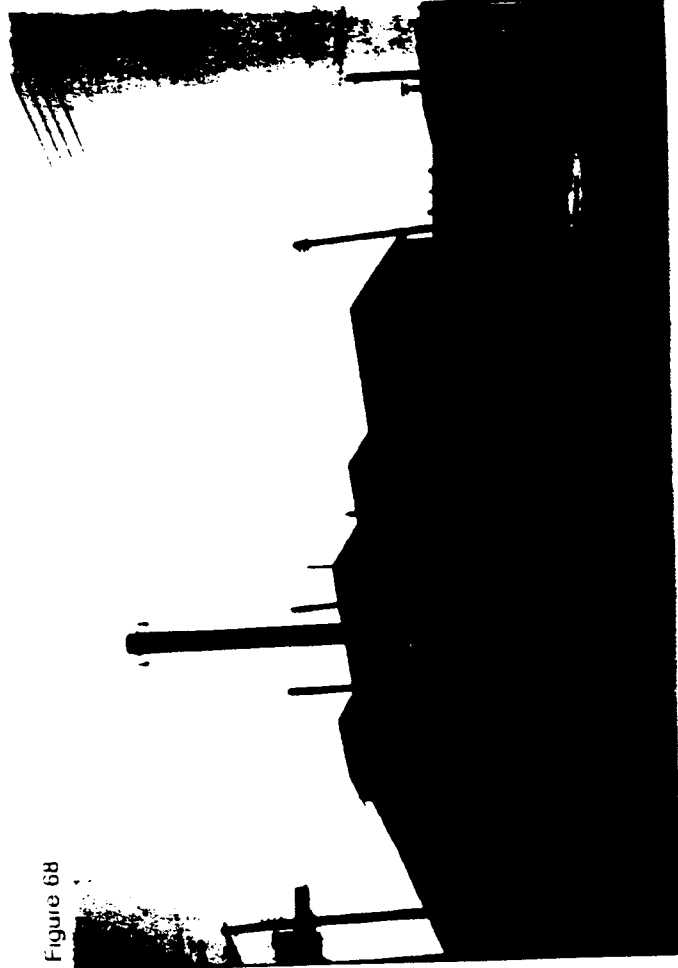


Figure 68



Figure 66



Figure 69





Figure 70

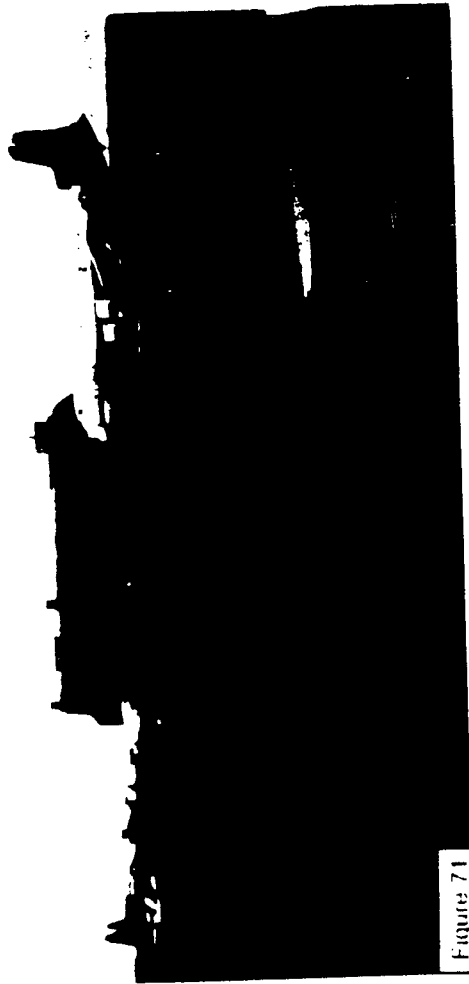


Figure 71



Figure 73

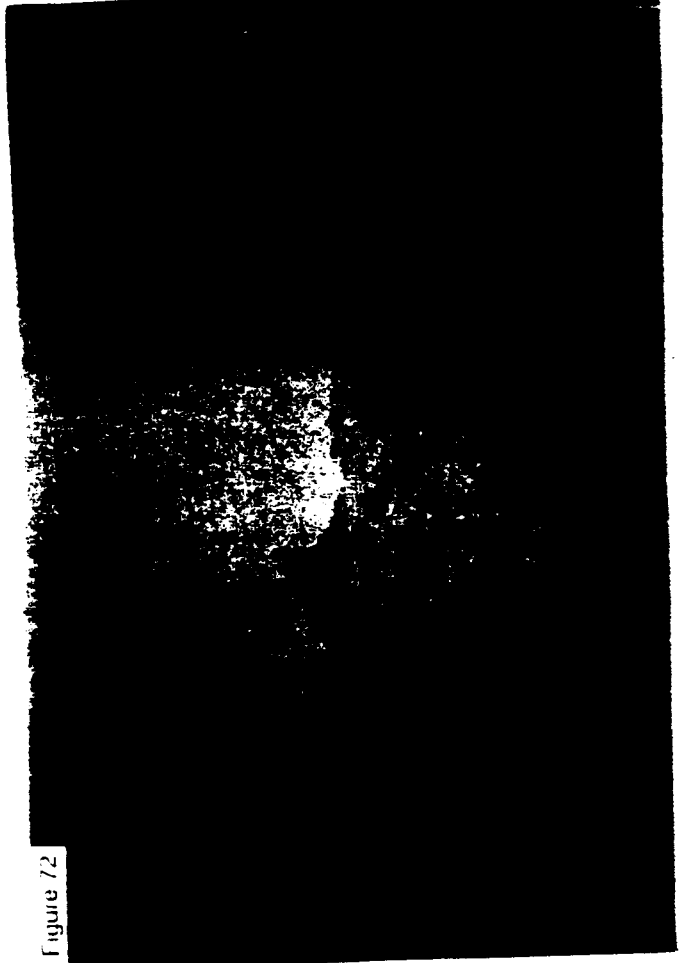


Figure 72



Figure 75

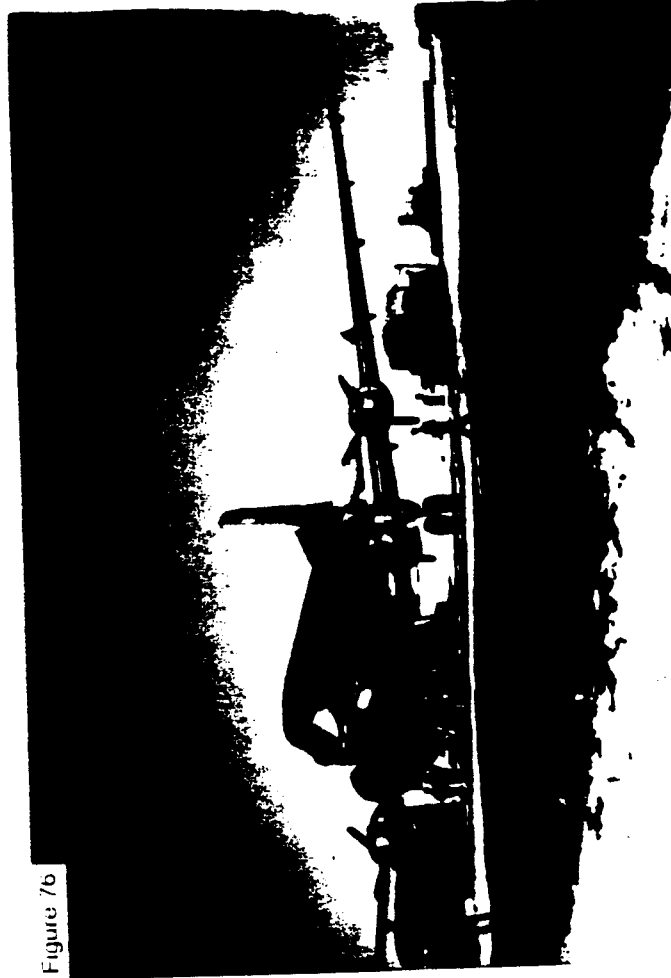


Figure 76



Figure 74



Figure 77



Figure 78

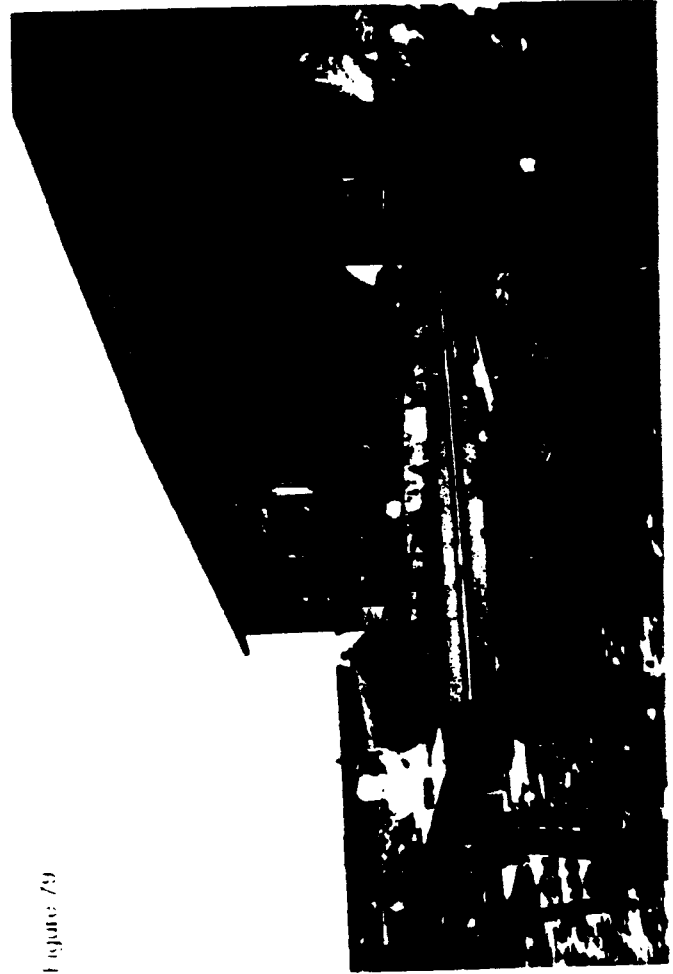


Figure 79



## Appendix D Command Chronology

The following incomplete command chronology of Marks Field, Marks AFB, Nome Field was drawn from the various references used in this history.

Capt. Garnett W. Martin	arrived 3 September 1941
B/Gen. Edwin W. Jones	arrived 27 August 1942, departed 4 October 1944
L/Col. William T. Kim	arrived 4 October 1944
Col. James H. Potter	arrived circa September 1945
Col. Bodle	commanded in 1947 and perhaps 1946, departed in 1948
Col. Harry N. Burkhalter, Jr.	arrived in 1948, departed summer 1949
L/Col. Donald C. Jameson	arrived in summer(July?) 1949, departed November 1950
Major George Tanner	1952-1953
Major James D. Kell	arrived circa May 1955, departed May 1956
1/Lt James W. Williams	arrived September 1955, departed September 1956; detachment commander May 1956 to September 1956. Squadron commander beginning May 1956 was Major Robert J. Cahill at Galena, AK

## Appendix E Organization Table

The table shows approximate time lines for all military units identified in the research for this history.

	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	foot notes
<b>Parent</b>																	
1	?----11 <sup>th</sup> Air Force-----/-----Alaskan Air Command-----																
2	/-----Sector II-----																
3	/-----5001 <sup>st</sup> ABG-----/-----5001 <sup>st</sup> ABW-----																
<b>Marks/Nome Field Operations</b>																	
4	/-----Army Ground Forces-----/																
5	/-11 <sup>th</sup> AF-/																
6	?-----122 <sup>nd</sup> AACS det-----?-----																
7	?-----5030 <sup>th</sup> ABRON-----/ ?-Flt A 5001 ABG-/-----5003 <sup>rd</sup> ABRON-----																
8	?-----157 <sup>th</sup> AACS det-----? ?-1930 AACCS-/																
	/-----AIS-----/																
<b>Marks/Nome Field Tenants</b>																	
9	/-----ATC-----/																
10	?--625 <sup>th</sup> AC&W det-----/142 <sup>nd</sup> AC&W det-----/																
11	?-----AFRS 50 watt-----/-----AFRS 1000 watt-----																
12	?---AFSS-----?																
13	?---ASA-----?																
<b>Outposts Supported by Marks/Nome Field</b>																	
14	?---122 <sup>nd</sup> AACS, 16 <sup>th</sup> Weather----/																
15	/---10 <sup>th</sup> Radio Relay-----/---11 <sup>th</sup> AD-----																
16	/-F-4 142 AC&W-/---710 <sup>th</sup> AC&W-----																
17	/-F-7 142 AC&W-/---711 <sup>th</sup> AC&W-----																
18	/-F-9 142 AC&W-/---712 <sup>th</sup> AC&W-----																

## Footnotes

1. The 11<sup>th</sup> Air Force became the Alaskan Air Command on 21 December 1945.
2. AAC Sector I was responsible for the area south of the Alaska Range. AAC Sector II was responsible for the area north of the Alaska Range. The 11<sup>th</sup> Air Division was created on 31 March 1953 in anticipation of the radar sites becoming operational and was responsible for the area north of the Alaska Range.
3. After placing the base on standby status in November 1950, the base became the responsibility of the 5001<sup>st</sup> Air Base Group at Ladd AFB. On 31 March 1953, the 5001<sup>st</sup> Air Base Group was redesignated the 5001<sup>st</sup> Air Base Wing. In late 1954, the 5001<sup>st</sup> Air Base Wing was redesignated the 5001<sup>st</sup> Air Defense Group. On 1 October 1955, the 5001<sup>st</sup> Air Defense Group was redesignated the 5001<sup>st</sup> Air Base Group.
4. First Army units at Nome Field arrived in September 1941 and the garrison was only several hundred until Operation Bingo in June/July 1942. Names of some of the units during the period from 1941-1945 were: 94<sup>th</sup> Quartermaster Service Battalion, detachment of the 122<sup>nd</sup> Army Airways Communication System, 4<sup>th</sup> Infantry Regiment, 75<sup>th</sup> Coastal Artillery, 81<sup>st</sup> (number not legible, may be 61st?) Field Artillery, 32<sup>nd</sup> Engineers. Most of the ground units left in December 1944.
5. An 11<sup>th</sup> Air Force base squadron arrived in October 1942. All 11<sup>th</sup> Air Force units left in June 1943.
6. Date of assignment of 5030<sup>th</sup> Air Base Squadron to Marks is unknown, it probably served at Marks from shortly after World War II until closure of Marks in November 1950. It was succeeded by Flight A of the 5001<sup>st</sup> Air Base Group. Flight A was succeeded by the 5003<sup>rd</sup> Air Base Squadron (of the 5001<sup>st</sup> Air Base Group) in 1953.
7. 122<sup>nd</sup> Army Airways Communications System detachments served the whole Northwest Route and Alaska portions of the ALSIB route. Beginning and ending dates at Marks are not known but included most of World War II and extended at least through September 1946. Dates for the 157<sup>th</sup> Aircraft and Airways Communication Squadron detachment are also unknown. The 157<sup>th</sup> is shown in a 1948 photo and probably continued until base closure in November 1950. Dates for the 1930<sup>th</sup> Aircraft and Airways Communication Squadron are also unknown but probably began with the renewed use of Nome Field in 1951 and extended to mid-1952 when aircraft following and communication was taken over by the new Air Defense Control Center.
8. Arctic Indoctrination School was established 15 August 1947, and relocated to Ladd AFB 15 April 1950.
9. The Alaska Wing of the Air Transport Command was organized 17 October 1942. By mid-October 1942 an ATC presence was established at Nome. In late 1943, an ATC service squadron was assigned to Nome. On 2 November 1945, ATC ceded operational control of all ATC airfields to the Eleventh Air Force.
10. Origins of radar detachment at Nome are unknown and may date back to World War II. Earliest date found was a 1948 photo of detachment of 625<sup>th</sup> AC&W Squadron. Detachment A-1 of 625<sup>th</sup> AC&W Squadron (of the 531<sup>st</sup> AC&W Group) became Detachment A-1 of the 142<sup>nd</sup> AC&W

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Squadron (of the 160<sup>th</sup> AC&W Group) circa June 1951. Detachment deactivated following beginning of operations at permanent radar stations in early 1953.

11. Origins of AFRS undoubtedly date back to early World War II. The change in mission and installation of a 1000 watt transmitter began in the summer of 1951. AFRS continued until May 1965.
12. The 3<sup>rd</sup> Radio Squadron Mobile was a unit of the Air Force Security Service. It deployed to Alaska in May 1950. Dates at Nome Field are unknown but are believed to be circa 1951 through 1953.
13. The 333<sup>rd</sup> Communications Reconnaissance Company was a unit of the Army Security Agency. It deployed to Alaska in October 1951. Dates at Nome Field are unknown but are believed to be circa 1951 through 1953.
14. Multiple outposts were maintained for aids to navigation manned by detachments of 122<sup>nd</sup> Army Airways Communications System and 16<sup>th</sup> Weather Squadron. Earliest date is unknown, probably late 1942 or early 1943. The last outpost was closed by mid-1946.
15. The Anvil Mountain Radio Relay began in June 1952. Initially it was a detachment of the 26<sup>th</sup> Communications Squadron, which became the 10<sup>th</sup> Radio Relay Squadron in February 1953. Anvil Mountain was Detachment No. 11. In July 1955 the 10<sup>th</sup> Radio Relay Squadron was deactivated and Anvil Mountain became Detachment 2 of the 11<sup>th</sup> Air Division, and in June 1956 became Detachment 2 of the 5001<sup>st</sup> Air Base Group and in November 1957 became Detachment 1 of the 5060<sup>th</sup> Support Group.
16. Detachment F-4 of 142<sup>nd</sup> AC&W Squadron (of the 160<sup>th</sup> AC&W Group) at Tin City (Cape Prince of Wales) was formed in mid-1951, and became 710<sup>th</sup> AC&W Squadron on 8 December 1952.
17. Detachment F-7 of 142<sup>nd</sup> AC&W Squadron (of the 160<sup>th</sup> AC&W Group) at Cape Lisburne was formed in mid-1951, and became 711<sup>th</sup> AC&W Squadron on 8 December 1952.
18. Detachment F-9 of 142<sup>nd</sup> AC&W Squadron (of the 160<sup>th</sup> AC&W Group) at Northeast Cape was formed in mid-1951, and became 712<sup>th</sup> AC&W Squadron on 8 December 1952.

Other units mentioned in references. Little information was found. Many were probably on deployment rather than stationed at Marks/Nome Field.

- Gambell was Det. A of 538<sup>th</sup> AC&W Group, then Det. A-4 of the 160<sup>th</sup> AC&W Group, then Det. A-4 of the 142<sup>nd</sup> AC&W Squadron, no dates are given: letter of 18 April 1991, Office of History to McLain Museum. I believe this same sequence followed the Nome Field detachment.
- Detachment 32 of 3<sup>rd</sup> RSM was at Northeast Cape.
- 28<sup>th</sup> Composite Group: B-18s were deployed to Nome in late 1941.
- 56<sup>th</sup> Fighter Group: deployed to Nome in July 1942 for perhaps six months.
- 64<sup>th</sup> Fighter Squadron: included in 1947 station list.
- 10<sup>th</sup> Air Rescue Squadron detachment: included in 1947 station list.
- 53<sup>rd</sup> Airways detachment: included in 1947 station list.
- Company A 153<sup>rd</sup> Infantry: September 1941.
- 449<sup>th</sup> Fighter Interceptor Squadron: 1949 and 1950.



## Appendix F

### Other Research Sources

The following are possible additional sources of information on Marks AFB/Nome Field that are as yet unresearched.

1. Suggested by Joel Krausse letter of October 1, 1998. The U.S. Coast Guard has maintained "Aids to Navigation" along the Bering Sea, Norton Sound and the Chukchi Sea for some time. A 1358 foot Loran tower was installed at Port Clarence. The Alaska Headquarters is located at the U.S. Coast Guard Support Center at Kodiak, AK. Their historical documents may be located elsewhere and a nearby Coast Guard District office may be able to suggest where historical inquiries should be directed.
2. Suggested by Joel Krausse letter of October 1, 1998. The Civil Aeronautics Administration (now FAA) had facilities at Nome Field as did the Alaska Communications System.
3. Suggested by Joel Krausse letter of October 1, 1998. The U.S. Army Corps of Engineers is another source. Perhaps the historical documents for the Anchorage District are located at General Services Administration Records Depository in Seattle, WA or at the National Archives, 8601 Adelphi Road, College Park, MD 2074-6001.
4. Suggested by Joel Krausse letter of October 1, 1998. The 632<sup>nd</sup> and 633<sup>rd</sup> Aircraft Control and Warning Squadrons in the 1947-51 time period had personnel detached at Nome Field. Information may be available on microfilm from AFHRA, Maxwell AFB, AL.
5. Suggested by Joel Krausse letter of October 1, 1998. The Military Air Attaché at the Soviet Embassy in Washington, D.C. may have information for the lend-lease period, 1942-1945.
6. Identification of records to research at AFHRA, Maxwell AFB, AL was done by mail using the key words: Marks Field, Nome Field, and Marks AFB. This search produced records of the Alaskan Air Command, 10<sup>th</sup> Air Division, 11<sup>th</sup> Air Division, Air Transport Command, 94<sup>th</sup> Quartermaster Service Battalion, 122<sup>nd</sup> Army Airways Communications System, 531<sup>st</sup> AC&W Group, Arctic Indoctrination School, and Alaska Communications System. It appears that the records at AFHRA are largely unit histories. However, there is a problem in looking up unit histories: you have to know the name of the unit. Thus I have been able to look up histories of only those units whose names have been discovered. It is possible, maybe probable, that there are additional unit histories at AFHRA that are relevant to the subject but are not triggered by the key words used. As number designations of other units at Nome Field are discovered, similar inquiries may be made to AFHRA, Maxwell AFB, AL for historical information on these units. Appendix D contains the names of all discovered units at Marks/Nome. Also, since many of the units in the time frame circa 1950-56 were part of the 5001<sup>st</sup> Composite Wing (Ladd AFB) an AFHRA inquiry for the 5001<sup>st</sup> may be productive.
7. University of Alaska archives, Fairbanks.
8. The U.S. Army maintains an agency similar to AFHRA (name is unknown) at Carlisle Barracks, PA. There was no U.S. Air Force prior to 1947, but many (perhaps all) of the Army Air Force records appear to be archived at AFHRA. However, in addition to the Army Air Force units at Marks Field, there was a substantial body of Army ground forces at Marks until late 1944. This information did not turn up at AFHRA and it may be archived at Carlisle Barracks.
9. The CAA constructed the runways in 1941 and from at least 1947-1956 (and perhaps earlier) operated the airfield jointly with the military. It is not known where the CAA (now FAA) archives are located but if they exist, the CAA archives probably have valuable information.

## **History of Military Airfield at Nome, Alaska**

10. The 1944 Construction Report contains handwritten notation referring to the Washington National Records Center, Suitland, Maryland. Additional information may be available there.
11. Sources located in Nome who may have additional information include the archives of the Nome Nugget and the photo archives of Richter Photography.